Environmental Procedures Manual

M 31-11



Washington State Department of Transportation

Environmental and Engineering Programs Environmental Services Office



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Washington State Department of Transportation Engineering Publications, Room SD3 PO Box 47408 Olympia, WA 98504-7300

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Email: leerc@wsdot.wa.gov

Many WSDOT publications are available on a CD-ROM or on the Internet via the WSDOT home page at http://www.wsdot.wa.gov/fasc/EngineeringPublications. Please check this web site, or contact the Engineering Publications Division to find out whether this manual is currently available in electronic format.

The Environmental Procedures Manual (EPM) is a compilation of environmental procedures and processes that is to be used as a guidance resource for the WSDOT and its environmental consultants. The EPM outlines WSDOT's legal requirements related to environmental, cultural, historic and social resources and is a keystone of WSDOT's Environmental Management System (EMS).

The information contained in the EPM supplements the wide range of technical expertise among WSDOT Engineering, Environmental, Highway and Local Programs, and Planning staff, as well as local agencies and consultants. It provides consistent, current, and accurate guidelines for complying with federal and state environmental laws and regulations for all phases of project delivery. The guidance provided by the EPM assists WSDOT project proposals by encouraging early consideration and documentation of environmental issues during project scoping, alternative development, and preliminary design. It also provides guidance on complying with environmental requirements during the construction and maintenance phases of a project as well as addressing utilities and surplus property sales.

Updating this manual is a continuing process, due to the ever-changing status of environmental policies. Users are encouraged to submit the Process Improvement Suggestion Form provided with the manual to help guide future updates. For convenience, the manual is also available on the WSDOT Environmental Services Office Web Ste and on Compact Disk.

Don Nelson

Director

Environmental and Engineering Program

This manual includes information from many sources other than the Washington Department of Transportation, including a variety of state and federal agencies. Every effort has been made to make this information as current as possible. However, it is the reader's responsibility to ensure that any action taken to comply with the excerpted or referenced material is based on the most current information available from these outside sources.

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100.01 Introduction

The Environmental Procedures Manual (EPM) provides guidance for complying with federal, state, and local environmental laws and regulations and WSDOT policy during all phases of the Washington State Department of Transportation (WSDOT) Transportation Decision-Making Process, which includes Transportation Planning, Project Scoping and Programming, Design and Environmental Review, Environmental Permitting and PS&E (Plans, Specifications, and Estimates), Construction, Maintenance and Operations, and Property Management. A general statement of WSDOT Environmental Policy is provided at:



http://www.wsdot.wa.gov/environment/EnvPolicyStatement.htm

The manual applies to facilities that are owned and operated by the WSDOT: the state highway system, ferry system, state-owned airports, state-sponsored rail system, and maintenance facilities. Cities, counties, other local agencies and private transportation entities may also use the EPM for guidance on their transportation facilities, either voluntarily or as required under WSDOT's Local Agency Guidelines (M 36-63).

The intended users of the manual are WSDOT staff, consultants working on WSDOT projects, and other state and local staff working on transportation-related facilities. The manual is primarily a technical resource focused on the "how to" of environmental review and permitting as required by the National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) and other laws and regulations. In addition to technical guidance, the manual provides background information on environmental laws, interagency agreements, and WSDOT policy statements to aid in interpreting the numerous mandates. Understanding a law's history and intent may aid the user in properly interpreting its application. The manual also lists resources for further information and assistance in complying with the technical requirements. One such resource for in-depth guidance on a variety of environmental topics related to transportation is the American Association of State Highway and Transportation Officials (AASHTO) Center for Environmental Excellence web site located at:



http://environment.transportation.org/indexnew.asp

The manual revises and replaces the previous September 2005 EPM (M 31-11). The new manual relies extensively on resources available through the Internet. In most cases these

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: http://www.wsdot.wa.gov/environment/

are agency web sites with information on the regulatory process and requirements. The revised manual is available and will be available on WSDOT's Engineering Publications CD ROM in March 2006, and through the WSDOT Environmental Services Office (ESO) web site listed below. In either format, the new EPM is available as a complete file or as a group of separate chapter and appendix files both of which can be searched for key words.

Updating and revising the manual is a continuous process because of the ever-changing status of environmental issues and laws. While WSDOT endeavors to keep the EPM current, it is the user's responsibility to ensure that any action taken to comply with environmental laws and regulations is based on the most current information available. The manual lists web sites and agency contacts that can assist a user with this task. When changes are made, typically on an annual basis, WSDOT mails a CD of the new version to recipients of the previous version and makes the new version available on an "Environmental Procedures Manual" web site (accessed from the ESO web site) where any addenda issued between annual updates may also be found.

Comments and suggestions for improving the manual are welcome. Please use the feedback form in the back of the manual. Please direct comments to the Environmental Services Office (ESO) for consideration in the next revision. For questions about the manual, users may contact the ESO at 360-705-7491. For additional copies of the EPM, please contact Engineering Publications at the Transportation Building in Olympia, Washington (360-705-7430). Both offices are online via the WSDOT web site:



http://www.wsdot.wa.gov/

Click on Environmental. Or click on Maps & Data, then Engineering Publications.

Or by direct link:



http://www.wsdot.wa.gov/environment/

and



http://www.wsdot.wa.gov/fasc/EngineeringPublications/

100.02 **Organization of Manual**

(1) Overview

The manual is organized to reflect the flow of a transportation project through all major phases of the WSDOT Transportation Decision-Making Process. Figure 100-1 illustrates the relationship of the manual parts to the phases, and **Table 100-1** identifies the major activities associated with each phase, including major environmental activities. The manual's seven major parts each contain chapters that describe the phase and relevant environmental considerations or requirements during that phase. These are:

Part 2 – Transportation Planning

Part 3 – Project Scoping and Programming

Part 4 – Design and Environmental Review

Part 5 – Environmental Permitting and PS&E

Part 6 – Construction

Part 7 – Maintenance and Operations

Part 8 – Property Management

Figure 100-1: Relationship of Environmental Procedures Manual to the WSDOT Transportation Decision-Making Process

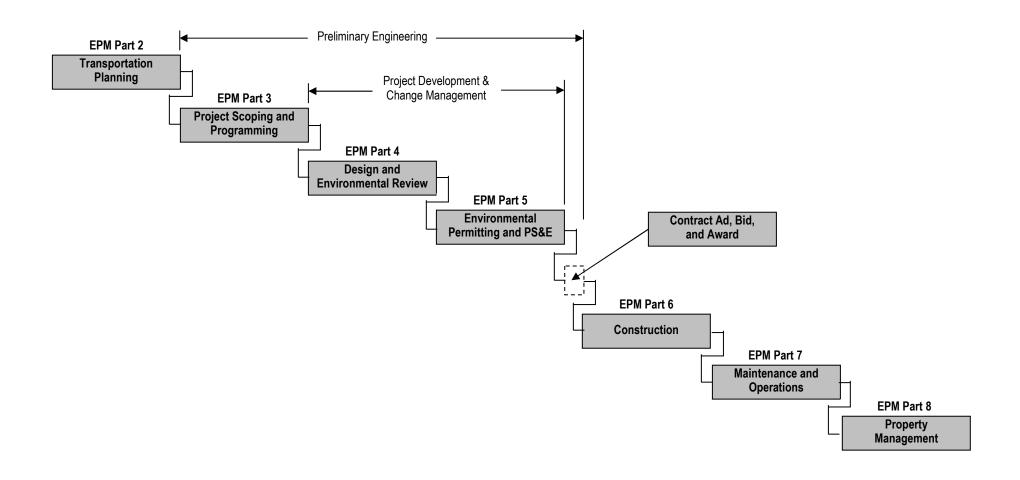


Table 100-1: WSDOT Environmental Procedures Manual General Organization

EPM	Project Phase	Planning/Engineering Activity	Environmental Activity
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Part 3	Project Scoping and Programming	 10-yr Implementation Plan Project Scoping and Project Summaries (project definition, design decision summary) Project Scheduling Cost Risk Assessment Biennial review meeting (regions) WSDOT budget to legislature Statewide Transportation Improvement Program 	Project Summaries include an environmental review summary (required permits and approvals, project environmental classification, environmental considerations) Schedule environmental review and permitting Consider environmental risks and opportunities Revise environmental review summary if necessary
Part 4	Design and Environmental Review	• Design	 EIS Scoping – public involvement & interagency coordination Environmental studies and alternative/mitigation selection for NEPA/SEPA and permits
Part 5	Environmental Permitting and PS&E	Rights-of-WayPlans Specifications, and Estimates (PS&E)	Environmental permitting Environmental commitment tracking
Part 6	Construction	Contracting, construction management	 Inspection, monitoring for environmental compliance Use of Best Management Practices (BMPs)
Part 7	Maintenance and Operations	Ongoing operation & maintenance	 Inspection, monitoring for environmental compliance Use of BMPs
Part 8	Property Management	 Utilities Accommodation Evaluation of surplus property for transportation uses 	Compliance assurance Assessment of property for potential environmental uses, hazardous materials risk

(2) Manual Appendices and Index

For easy reference, the manual includes the following appendices, which compile information found in individual chapters:

- A Abbreviations and Acronyms
- B Glossary
- C Web Site Reference Guide
- D Environmental Statutes and Regulations
- E Interagency Agreements
- F Environmental Permits and Approvals
- G For More Information (WSDOT and other agency contacts, map of WSDOT regions, and Process Improvement Form)

Another reader-friendly feature is the frequent cross-referencing to related information in other sections of the EPM, shown in bold face, e.g. Part 2, Chapter 410, Section 520.03, Exhibit 620-1. In addition, an index shows page numbers where key subject matters are discussed.

100.03 Exhibits

None.

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200.03	Organization of Part 2
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200.05	Abbreviations and Acronyms
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Key to Icon



Web site.*

200.01 Introduction

Part 2 covers Transportation Planning as practiced in Washington State by WSDOT and other transportation planning agencies, and environmental considerations in Transportation Planning. It covers the legal and policy framework for Transportation Planning (and Project Scoping and Programming) and WSDOT's role in developing various transportation studies and plans. These include a variety of studies and plans for highways and ferries and other modes; local, metropolitan, and regional transportation plans; and the Washington Transportation Plan (WTP). The WTP includes system plans for all components of the state's transportation system that are owned by the state or in which the state has an interest. Additional information on transportation planning may be found at the WSDOT Transportation Planning Office web site:



200.02 Process Overview

Transportation Planning is the first phase of the WSDOT Transportation Decision-Making Process. Figure 200-1 shows the relationship between Transportation Planning and the subsequent Project Scoping and Programming phase. Figure 200-2 shows the state's overall Transportation Planning process, where the state's transportation providers, including WSDOT, coordinate on various transportation studies and then cooperate within the Metropolitan and Regional Transportation Planning Organizations (MPOs and RTPOs) that they belong to, to develop metropolitan and regional transportation plans, which in turn become a basis for parts of the WTP. During this process, WSDOT and other transportation providers conduct studies and develop plans to identify existing and future transportation needs and deficiencies, assess options, and propose policy, project, and/or program solutions to address these needs and deficiencies. Local government planning may include work on the transportation element of their comprehensive plans. WSDOT planning includes

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

analyzing data on system condition and performance and preparing planning studies, some of which may not be concluded until the end of the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process (see Chapter 220).

EPM Part 2 EPM Part 3 Project Scoping and Transportation Planning Phase Programming Phase Coordination Metropolitan Planning Washington Studies by and Planning and Regional Transportation Transportation Transportation with Plan (WTP) MPOs / RTPOs **Providers Plans**

Figure 200-1: Transportation Planning Phase

Then, as required by federal and state statutes, transportation providers work within the appropriate Metropolitan and/or Regional Transportation Planning Organizations to ensure that MPO and RTPO plans include all appropriate solutions for addressing local and state-owned and state-interest transportation facility and service needs that can potentially be implemented in the next 20-plus years. Finally, these solutions are incorporated into the Washington Transportation Plan (WTP), either directly or by incorporation into various component system plans that are adopted by reference in the WTP. The WTP, which is updated every four to six years, also includes any other policies, projects, and/or programs that may be needed in the next 20-plus years to address other deficiencies in state-owned and state-interest transportation facilities and services, including highways, ferries, aviation, freight and passenger rail, and public transit.

200.03 Organization of Part 2

Following this overview of Transportation Planning, Chapter 210 describes the legal and policy framework for transportation planning, which includes federal and state statutes and Washington Transportation Commission policy. Chapter 220 describes various types of transportation planning studies produced by WSDOT. Chapter 230 describes how the transportation element of local comprehensive plans and metropolitan and regional transportation plans are developed and how they relate to state transportation planning efforts. Chapter 240 discusses the Washington Transportation Plan (WTP) and its component system plans.

Other U.S. Forest Transit Cities Ports **WSDOT** Tribes Counties **National Park** Transportation Service Agencies Service Providers Planning studies to identify existing and future transportation needs/deficiencies, assess options, and propose policy, project, and/or program solutions to address those needs/deficiencies. (Local projects and (Non-local and nonprograms that do not WSDOT projects and MPOs / RTPOs use federal funds or programs that do not otherwise require use federal funds or FHWA or FTA otherwise require Additional planning studies as needed FHWA or FTA approval) approval) 20+ year Metropolitan and Regional Transportation Plan (Policies, projects, and programs for state-owned and (Local projects and state-interest facilities and services) programs that may use federal funds or otherwise require (Developed every 4-6 years by WSDOT for FHWA or FTA 20+ year Washington approval by the Washington State Transportation Plan (WTP) approval) Transportation Commission) Non-Motorized Marine Ports and Highway Washington Aviation Freight Passenger **Public** Bicycle and Navigation System Plan State Ferries Plan Rail Plan Rail Plan Transportation Pedestrian Scheme of Plan Plan Walkway Plan Development (To Project Scoping and Programming)

Figure 200-2: Transportation Planning in Washington State

200.04 Environmental Considerations in Transportation Planning

In Transportation Planning, it is both possible and appropriate to begin considering the environmental consequences of any policy, project, and/or program for addressing transportation deficiencies. However, such consideration is not expected to be at the same level of detail as may be required by NEPA and SEPA for actions taken after Project Scoping and Programming. Conceptual planning of proposals that have not yet been approved, adopted, or funded is "categorically exempt" (from the detailed environmental impact analysis requirements of SEPA) as "Information collection and research" under Ecology's SEPA Rules (WAC 197-11-800(17)).

(1) Early Consideration of Environmental Consequences

WSDOT considers the environmental consequences of proposed solutions evaluated in its plans and studies and encourages other planning agencies to do the same. It may even be appropriate to rule out certain solutions that would meet the stated transportation objectives, but at an unacceptable or higher level of environmental degradation than other choices, especially if the results of a reasonable environmental degradation comparison can be documented. WAC 197-11-070 prohibits any action that would limit the choice of "reasonable alternatives" until after completion of the SEPA process. However, WAC 197-11-786 defines a "reasonable alternative" as "an action that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation."

(2) Use of Environmental Information

A lot of environmental information, such as population and land use projection data, is typically collected and analyzed in the transportation planning process, and WSDOT maintains a GIS (Geographic Information System) "Workbench" and other sources of environmental data that can be used to identify and document potentially affected environmental resources. This information can then be used to identify opportunities to avoid or minimize environmental impacts of any alternative transportation solutions being considered, and potentially eliminate alternatives with unacceptable or greater environmental consequences. Also, for the statewide multi-modal transportation plan (WTP), RCW 47.06.040 directs WSDOT to identify and document potential affected environmental resources in coordination with relevant regulatory agencies, including local governments, and give the agencies an opportunity to review the environmental resource documentation.

For information on how to access the GIS Workbench, see:

1 http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

1 http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog

Or by direct link:

ttp://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(3) Documentation

Environmental information and/or analyses used in the planning process, and environmental impact avoidance or minimization actions taken, should be thoroughly documented. This allows the information to be used again, or incorporated as evidence of mitigation, to expedite environmental review and permitting during the Design and Environmental Review and Environmental Permitting and PS&E phases of the WSDOT Transportation Decision-Making Process.

For guidance on how information, analyses, and products from the transportation planning process can be incorporated into the NEPA process under existing statutes and regulations, please see the following web site:

http://nepa.fhwa.dot.gov/ReNepa/ReNepa.nsf/0/9fd918150ac2449685256fb10050726c?OpenDocument

200.05 Abbreviations and Acronyms

Following are the key abbreviations and acronyms used in **Part 2.** Others are found in the general list in **Appendix A**.

CAA	Clean Air Act
CAFM	Computer Aided Facility Management
CAPP	County Arterial Preservation Program
CRAB	County Road Administration Board
FHWA	Federal Highway Administration
FAA	Federal Aviation Administration
FTA	Federal Transit Administration
GMA	Growth Management Act
HSP	Highway System Plan
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
RAP	Rural Arterial Program
RDP	Route Development Plan
RTPO	Regional Transportation Planning Organization
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A
	<u>Legacy for Users</u>
SEPA	State Environmental Policy Act
SFTA	Strategic Freight Transportation Analysis
SIP	State Implementation Plan
STB	Surface Transportation Board
STIP	Statewide Transportation Improvement Program
TEA-21	Transportation Equity Act for the 21st Century (PL 105-178), as amended by
	the TEA-21 Restoration Act of July 22, 1998
TIP	Transportation Improvement Program

200.06 Glossary

WTP

See **Appendix B** for a general glossary of terms used in the EPM.

Washington Transportation Plan

200.07 Exhibits

None.

210.01	Introduction
210.02	Federal Legislation
210.03	State Legislation
210.04	Policy Guidance
210.05	Exhibits

Key to Icon



Web site.*

Introduction 210.01

Transportation Planning, and Project Scoping and Programming, are driven to a large extent by federal and state requirements. WSDOT must comply with federal law because transportation is regulated by Congress as interstate commerce under the commerce clause of the Constitution. Furthermore, a substantial portion of WSDOT's budget comes from federal funds, and WSDOT must comply with various federal laws to receive and spend these funds. These funds and associated federal laws are administered by a variety of federal agencies including the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Federal Aviation Administration (FAA); and the Surface Transportation Board (STB).

State laws also govern transportation planning. WSDOT is a state agency and is funded through the state legislature. Numerous state laws govern WSDOT's planning activities.

This part reviews the primary federal and state legislation affecting transportation planning and the overall policy guidelines of the Washington Transportation Commission. For more specific references, see Chapter 410 through Chapter 480. See Appendix D for a list of statutes referenced in the EPM.

210.02 **Federal Legislation**

Following are some of the key statutes affecting transportation planning. For a detailed reference matrix, see FHWA's web site:



http://www.fhwa.dot.gov/

Click on FHWA Programs; then Environment; then Legislation, Regulations, and Guidance; then Summary of Environmental Legislation (under Legislation).

Or by direct link:



http://www.fhwa.dot.gov/environment/env_sum.htm

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(1) SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

SAFETEA-LU was enacted on August 10, 2005, as Public Law 109-59. It replaces the Transportation Equity Act for the 21st Century (TEA-21) of 1998 as the authorizing legislation for federal surface transportation funding for highways, highway safety, and transit for the 5-year period 2005-2009. The full text of SAFETEA-LU may be found on the FHWA web site at:

http://www.fhwa.dot.gov/

Click on Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), then Legislation.

Or by direct link:

http://www.fhwa.dot.gov/safetealu/index.htm

Transportation Planning provisions of SAFETEA-LU are summarized below.

Statewide <u>Transportation Planning (Section 3006)</u> (a)

As a condition for receiving federal surface transportation funding, states are required to:

- Develop a long-range statewide intermodal transportation plan that covers at least 20 years and includes a discussion of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain environmental functions affected by the plan.
- Develop statewide plans and programs for the development and integrated management and operation of intermodal surface transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities).
- Coordinate statewide transportation planning with metropolitan transportation planning and statewide trade and economic development planning.
- Develop the transportation portion of the State Implementation Plan (for air quality) as required by the Clean Air Act.
- Develop a Statewide Transportation Improvement Program (STIP) that includes the Transportation Improvement Programs (TIPs) developed by Metropolitan Planning Organizations (MPOs).

Goals of Transportation Planning (Section 3005 and 3006) (b)

SAFETEA-LU directs states to carry out a statewide transportation planning process that provides for the consideration and implementation of projects, strategies, and services that will:

- Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the safety of the transportation system for motorized and non-motorized users.

- Increase the security of the transportation system for motorized and non-motorized users.
- Increase the accessibility and mobility of people and freight.
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight.
- Promote efficient system management and operation.
- Emphasize the preservation of the existing transportation system.

Other environmental provisions of SAFETEA-LU are discussed in Chapter 410 and at the FHWA web site.

Clean Air Act (2)

Under the federal Clean Air Act (42 USC 7401 et seq.), each state must develop a state implementation plan (SIP) for controlling criteria air pollutants including those released by vehicles. USEPA recently set new standards for ozone and particulate matter, two pollutants partially caused by motor vehicles. There are transportation funding implications for "non-attainment" areas not meeting the standards. If a region in non-attainment does not show progress in moving towards attainment, federal transportation funds for non-exempt projects can be withheld under certain conditions. In addition, transportation projects requiring federal funding in non-attainment and maintenance areas must go through a federal "conformity" process and can have the funds withheld if they will further worsen air quality beyond allowed limits. For details, see Section 425.02.

210.03 **State Legislation**

Requirements for transportation planning are also established in state law. In Washington State, the transportation planning, project scoping and programming, and project development and accompanying environmental review processes are closely intertwined. They were given added significance by passage of the Growth Management Act (GMA) in 1990 and the Salmon Recovery Act in 1998.

Statewide Multi-Modal Transportation Plan (RCW 47.06) (1)

Under this law, WSDOT is responsible for developing a statewide multi-modal transportation plan, in conformance with federal requirements. The plan is "to ensure the continued mobility of people and goods within regions and across the state in a safe, cost-effective manner." In 2002, the Washington State Transportation Commission adopted the current Washington Transportation Plan, in part to comply with this mandate. The WTP is updated on a regular basis, and the next update is scheduled to be completed in December 2005. The WTP is discussed further in Chapter 240 and can be viewed online at:

http://www.wsdot.wa.gov/planning/wtp/

(2) Growth Management Act

The GMA (RCW 36.70A), adopted in 1990, requires cities and counties with significant population growth to prepare comprehensive plans composed of six elements including a transportation element. The transportation element must document the 20-year transportation infrastructure needs that are consistent with the other plan elements. The jurisdiction must show how it will pay for the level of services it is providing and any new facilities or service must be concurrent with the development driving the need. For details, see Chapter 451.

An implementation guidance manual, *Coordinating Transportation with Growth Management Planning* under 1998 legislation, HB 1487, the "level of service bill," is available on line from WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Search, then Site Index, then T, then Transportation Planning, then Coordinating Transportation and Growth Management.

Or by direct link:

http://www.wsdot.wa.gov/ppsc/planning/pdf/manual.pdf

Both the GMA and statewide transportation planning statute require WSDOT to comply with local comprehensive plans and development regulations. The GMA requires local governments to develop a process for siting "essential public facilities", which (according to RCW 36.70A.200) "include those facilities that are typically difficult to site, such as airports, state education facilities and state or regional transportation facilities as defined in RCW 47.06.140, state and local correctional facilities, solid waste handling facilities, and in-patient facilities including substance abuse facilities, mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.09.020."

RCW 47.06.140 (the statewide transportation planning statute) indicates that improvements to facilities and services of statewide significance identified in the statewide multimodal plan (i.e. WTP) are essential public facilities, and it says that the following transportation facilities and services are of statewide significance: the interstate highway system, interregional state principal arterials including ferry connections that serve state-wide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions as defined in RCW 81.104.015.

(3) Regional Transportation Planning Organizations (RCW 47.80)

This statute was adopted as part of the GMA in 1990 to facilitate coordination and cooperation among state and local jurisdictions and establish a coordinated planning program for regional transportation systems and facilities throughout the state. It authorizes the creation of regional transportation planning organizations (RTPOs) with multiple duties, not the least of which are to prepare a regional transportation plan as set forth in the statute, as well as a six-year regional transportation improvement program, which must be updated at least

every two years. RTPOs and Regional Transportation Plans are further discussed in **Chapter 230**.

(4) Washington Clean Air Act (RCW 70.94)

Washington adopted a Clean Air Act to implement requirements of the federal CAA and protect air quality in Washington. The Washington Clean Air Act provides authority to the Washington State Department of Ecology over air pollution sources and to develop the State Implementation Plan for Air Quality (SIP) and SIP amendments as mandated by the federal CAA. For details, see Section 425.02.

(5) Salmon Recovery Act (RCW 77.85)

This act, adopted in 1998, is an action plan from the Joint Natural Resources Cabinet. Its focus is new actions or modifications to existing activities that provide additional protection for salmon.

It is a combination of priority actions for short-term implementation and a scorecard to track implementation of strategies.

The act will lead to defined criteria and analysis that will be required on land use and road projects in the coming years. These will be folded in with any regional or state agreements on the 4(d) rule. For details, see **Chapter 436**.

210.04 Policy Guidance

WSDOT follows two types of policy guidance, Washington Transportation Commission policy and WSDOT policy. The policy guidance summarized in this section is applicable to transportation planning.

(1) Washington Transportation Commission Policy

The 1997 Transportation Commission Policy Catalog provides policy guidelines to shape and direct state, regional, and local decisions about the future of Washington's transportation systems. The policy in this catalog was developed through a consensus-based process staffed by WSDOT and guided by public input.

The following eight policy objectives of the Policy Catalog apply to all modes and all transportation providers in Washington:

- Protect our investments by keeping transportation infrastructure in sound operating condition.
- Operate transportation systems to work reliably and responsibly for the customer.
- Improve safety through continuous reduction in the societal cost of accidents.
- Provide viable mobility choices for the customer and expand the system to accommodate growth.
- Support the economy through reduced barriers to the movement of people, products, and information.
- Meet environmental responsibilities.
- Cooperate and coordinate with public and private transportation partners so that systems work together cost effectively.

 Continuously improve the efficient and effective delivery of agency programs.

The Policy Catalog addresses several areas, the sixth of which is environmental protection. The environmental objective states the following three principles:

- Minimize, and avoid when practical, air, water, and noise pollution; energy usage; use of hazardous materials; flood impacts; and impacts on wetlands and heritage resources from transportation activities.
- When practical, and consistent with other priorities, protect, restore, and enhance fish and wildlife habitats and wetlands impacted by transportation facilities.
- Coordinate and take the lead in partnering with other agencies in environmental issues affecting transportation to reduce costs and increase effectiveness.

Chapter 6 of the Policy Catalog contains service objectives and detailed policies on air quality, water quality, fish and wildlife habitat protection, wetlands conservation, use of non-renewable energy resources, visual quality, noise abatement, use of hazardous substances, and heritage resources. These policies are listed in the appropriate chapters of **Part 4** in the policy guidance section.

(2) WSDOT Policy

WSDOT policies are guiding principles to accomplish broad objectives and/or specific direction in support of the department's vision, mission, and goals, and they are established in the form of an Executive Order or Policy Statement, which must be authorized by the Office of the Secretary. A general statement of WSDOT Environmental Policy, which applies to transportation planning, is provided at:

http://www.wsdot.wa.gov/environment/EnvPolicyStatement.htm

210.5 Exhibits

None.

220.01 Introduction

220.02 Transportation System Analyses

220.03 Highway Planning Studies

220.04 Ferry Planning Studies

220.05 Other WSDOT Planning Studies

220.06 Exhibits

Key to Icon



Web site.*

220.01 Introduction

WSDOT conducts a variety of transportation planning studies, often in cooperation with other transportation providers and system users. Some WSDOT studies are undertaken to identify existing and future needs and deficiencies in state-owned transportation systems and evaluate policies, projects, and/or program solutions for addressing those needs and deficiencies. WSDOT also participates in studies of other transportation systems in which the state has an interest. The following types of studies are discussed in subsequent sections of this chapter:

- Transportation System Analyses
- Highway Planning Studies
- Ferry Planning Studies
- Other WSDOT Planning Studies

The results of these studies can lead to recommendations in local, metropolitan, and regional transportation plans, as discussed in **Chapter 230**, and the Washington Transportation Plan (WTP), as discussed in **Chapter 240**. These plans all serve as a basis for Project Scoping and Programming, as discussed in **Part 3**. If a major study is needed for a potential project, however, WSDOT may seek funding through the Project Scoping and Programming process and conduct the study during the Design and Environmental Review process. A thorough analysis of potentially significant environmental impacts of various alternative solutions can then be performed, and a preferred alternative can be selected for further consideration and specification during the Environmental Permitting and PS&E phase of project development. Construction funding can then be pursued through the project programming process.

220.02 Transportation System Analyses

On a regular or as needed basis, WSDOT conducts analyses of assets in the state's highway, ferry, and state airport systems to determine their current condition and their current and future level of performance (given population and economic trends), sometimes with and without various improvements. Any maintenance, preservation,

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

and improvement needs or deficiencies are identified and evaluated. A more comprehensive assessment of any improvement needs, however, is often made through special studies described in Section 220.03 through Section 220.05.

Transportation system analyses are often made possible (or at least much easier) as a result of WSDOT's monitoring, database, and modelling systems that collect, maintain, and analyze data on roadway, bridge, ferry, and ferry terminal conditions; traffic, ridership, and travel demand and delay data; and speed and collision data. WSDOT also maintains database records of environmental deficiencies associated with its assets. Such deficiencies include culverts that block fish passage, roadways without adequate stormwater control, and roadways with chronic environmental problems like rockfall, landslides, flooding, or undercutting by rivers or streams.

Information on transportation system analyses of the state's highway system assets, including the WSDOT Highway Performance Monitoring System and other tools used to monitor the condition of the state's highways and/or evaluate current and future levels of performance, is available on the WSDOT Transportation Data Office web site:

http://www.wsdot.wa.gov/mapsdata/tdo/aboutthetdo.htm

220.03 Highway Planning Studies

WSDOT also conducts specific studies for individual highways, highway sections, and travel corridors. Such studies require a greater level of analysis and cooperation with interested parties to evaluate preservation and/or improvement options. In some cases, studies examine concepts for addressing the conditions and expectations for roads in the future. Some concepts may be eliminated from further consideration in later stages of planning and project development.

(1) Route Development Plans

Route Development Plans (RDPs) are planning studies for an individual highway or part of a highway. Within the study area, existing and future deficiencies are identified and appropriate solutions proposed. The scope of the study focuses on analyses of geometric and operating conditions, traffic volumes and safety trends, environmental concerns, population and land-use changes, and right-of-way and other issues that might affect the highway and its adjacent communities. Proposed solutions may include several short and long term alternatives. RDPs serve as the vision of the partners involved for how the study area should develop over time. They typically cover a 20-year planning horizon.

Setting the direction for routes within the state system provides WSDOT an opportunity to develop agreements with its partners, including tribal governments, local jurisdictions, regional and state organizations and agencies, communities, and the private sector. Public involvement is also key to the development of these plans, allowing concerns about access management and development review policies to be addressed. WSDOT also uses route development plans as a tool to define and address route continuity, if feasible.

When completed, an RDP is used to assist WSDOT, local agencies, and RTPOs with their plans and programs. RDPs are used to refine and update the Highway System Plan (HSP) by identifying potential projects. Completed RDPs are also utilized by WSDOT to communicate future route goals to stakeholders. Route

development plans are intended to be living documents and should be updated periodically to keep pace with changing transportation needs. Like corridor study plans, RDPs are key elements in linking planning to program development and, ultimately, project delivery.

For more information on RDPs and route development planning activity, see the WSDOT Transportation Planning web site at:

http://www.wsdot.wa.gov/ppsc/planning/

Click on Route Development Plans.

Or by direct link:

http://www.wsdot.wa.gov/ppsc/hsp/RDPlans.htm

(2) Corridor Study Plans

The usual purpose of a corridor study plan is to determine the best way to serve existing and future travel demand within a travel corridor. These studies define alignment, mode(s), and facilities between activity centers or other logical termini. Corridor study plans typically respond to a specific problem, such as high accident locations and corridors, high levels of existing or future congestion, and significant land-use changes. They often involve more than one mode. These plans identify existing and future deficiencies and evaluate preliminary alternative solutions. The recommended preferred alternative usually includes a facility description including environmental, operational, and other impacts, with proposed mitigation, if applicable. Corridor planning is accomplished using a long-range outlook, at least 20 years and sometimes longer.

A corridor study plan may be broad in purpose and recommendations or provide a significant level of detail for a very specific purpose.

Typically an existing facility, such as a highway or a rail line, defines the axis of a corridor, and the corridor will extend beyond the facility right-of-way. The corridor may be relatively narrow or extend as much as five miles or more on either side of the axis. The corridor usually connects major destinations, such as two cities, or a major portion of the distance between those destinations. A corridor may also cover the length of an entire route.

A corridor may also be defined as a broad geographic area served by various transportation systems. These systems provide important connections between various regions for passengers, goods, and services. Studies of this magnitude might be defined as "Regional or Mega-Corridors" and address links among a network of facilities and systems, including rail, highway, transit lines, transit stations, bicycle paths, airports, and marine ports/terminals.

The Transportation Research Board (TRB) has provided guidelines for developing corridor studies in The National Cooperative Highway Research Program (NCHRP), Report 435, *Guidebook for Transportation Corridor Studies: A Process for Effective Decision-Making*. In addition to the steps of the planning process for corridor studies, the guidebook deals with the decision-making process and its relationship to NEPA, and it recommends training for

core competencies in traffic pattern and volume modeling, public involvement and consensus building, economic analysis, financial analysis, and funding.

Benefits of corridor planning include:

- Resolution of major planning issues prior to the initiation of project development.
- Identification and possibly preservation of transportation right-of-way.
- Protection of transportation investments.
- Partnerships with diverse public and private agencies and organizations.

(3) Other Highway Planning Studies

WSDOT may conduct other planning studies to identify highway preservation and improvement needs and deficiencies and evaluate alternative policy, project, and/or program solutions for meeting those needs and deficiencies.

(a) Scenic Corridor Management Plans

Like Route Development Plans and Corridor Study Plans, Scenic Corridor Management Plans provide an analysis of a corridor over a 20 or more year planning horizon. However, their purpose is to establish community-based goals and implementation strategies along a corridor, especially to promote tourism as part of the economy of an area. These plans also describe how to use community resources efficiently, how to conserve intrinsic qualities of the corridor, and how to enhance its value to the community.

Scenic <u>Corridor</u> Management Plans are developed under the federal Scenic Byway Program. They follow FHWA guidelines for a master planning process along a corridor, with a focus both within and outside of the highway right-of-way. For more information on Scenic Byways and WSDOT Scenic Byway planning activity, see:

http://www.wsdot.wa.gov/TA/ProgMgt/Byways/

(b) Spot and Location Studies

Spot and location studies are used to address specific problems or deficiencies, such as safety or congestion problems, at a particular location, like a high accident location, or an interchange or intersection where traffic flow is a problem. They typically analyze alternative solutions, or the feasibility of a particular solution. Sometimes these studies are in response to legislative or other political interest and may have targeted funding

Results may range from recommending a near-term solution analyzed for its feasibility, recommending a long-term solution coupled with a near-term solution, or recommending an alternative solution. If appropriate, such studies also follow the SEPA/NEPA process. Additional funding may be required to implement any long-term solution, but operational funding may be available to implement a near-term solution.

220.04 Ferry Planning Studies

(1) Ferry Terminal Master Plans

Washington State Ferries occasionally prepares a new master plan or updates an existing master plan for a ferry terminal. This involves working with the community, other transportation providers, the metropolitan or regional transportation planning organization, and resource agencies. The process identifies preservation and/or improvements needs or deficiencies, assesses options for addressing those needs or deficiencies, including any environmental considerations, and recommends policy, project, and/or change-in-service solutions. WSF and community look at improvements that may be needed in overhead loading, terminal building, pick-up and drop-off areas, and access for public transit, bikes, and pedestrians.

(2) Other Ferry Studies

Washington State Ferries also uses origin/destination studies, and boat-wait, congestion, and delay studies to improve customer service. It has used a customer service survey to measure customer satisfaction with the ferry service and measure interest in potential new services and amenities aboard ferries and at their terminals.

220.05 Other WSDOT Planning Studies

(1) State Airport Studies

WSDOT Aviation assesses the maintenance, preservation, and improvement needs at the 16 state-owned and/or operated airports in a variety of ways, one example being a pavement assessment. Airport layout plans are being developed to assess future preservation and improvement needs, including new or replacement paving, navigation aids, lighting, utilities, hangar storage, improved road access, and property acquisition.

(2) Aviation Studies

WSDOT maintains a Washington State Aviation System Plan Airport Condition Assessment Database, which is periodically updated through airport management interviews and physical inventories to identify gaps and deficiencies in the airport system. The database includes information on intermodal connections, distance of highway access to the airport, land use, pavement conditions, airport facilities, and airport services.

This information is periodically used to determine how well the aviation system is performing, and identify actions necessary to direct the aviation system toward established goals, once a set of objectives for future performance have been identified. This is currently done in the process of updating the State Aviation System Plan, a component of the Washington Transportation Plan (WTP).

(3) Freight Mobility Studies

WSDOT conducts a variety of studies and analyzes the conclusions of studies by other entities to identify freight system needs and deficiencies. Customer requirements and

data-driven information provide the basis for recommended improvements to the state's freight system.

The WSDOT Draft Freight Report for the Washington Transportation Plan (WTP) 2005 Update exemplifies this methodology and WSDOT freight mobility studies. The draft report and executive summary can be found at:

http://www.wsdot.wa.gov/freight/images/WTP_FreightUpdate.pdf

The WSDOT Freight Office WTP methodology included:

- Over 200 one-on-one interviews with high-volume shippers and freight carriers
- Voice surveys of another 350 statewide customers
- Focus groups with key public and private partners
- Literature review of freight-dependent industries' requirements
- Truck surveys: origin-destination data on major statewide corridors
- Volume counts: truck trips, rail volumes, etc.
- Existing regional and national research studies and reports

In addition, WSDOT uses the Strategic Freight Transportation Analysis (SFTA) to provide data and direction for making investment decisions designed to improve freight mobility for the state's economic vitality. For more information on SFTA and WSDOT freight planning, see:

http://www.wsdot.wa.gov/freight/

(4) Freight and Passenger Rail Studies

WSDOT conducts freight and passenger rail studies to identify needs and deficiencies on rail lines and for service. These studies assess the best options for addressing these needs or deficiencies, in some cases to satisfy the needs of a particular type of customer, like grain transporters. More information is online at:

http://www.wsdot.wa.gov/rail/

(5) Capital Facilities Studies

WSDOT's Facilities Office uses field condition assessments to determine the condition, deficiency backlog, and operational suitability of each highway system support facility, and they maintain a Computer Aided Facility Management (CAFM) database and 10-year Capital Plan to identify and prioritize preservation and improvement needs and replacement and improvement schedules for those facilities.

220.06 Exhibits

None.

230.01	Introduction
230.02	Local Comprehensive Plans
230.03	Metropolitan Transportation Plans
230.04	Regional Transportation Plans
230.05	Exhibits

Key to Icon



Web site.*

230.01 Introduction

This chapter describes transportation plans prepared by counties and cities, Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Organizations (RTPOs), and WSDOT's role in working with these entities to coordinate local, metropolitan, regional, and state transportation planning.

230.02 Local Comprehensive Plans

Under the State's Growth Management Act (GMA), city and county comprehensive plans serve as basic building blocks for transportation planning. They define land uses and the transportation system needed to support those land uses over a 20-year planning period. Local comprehensive plans must include six elements, including transportation. The transportation element should integrate land use assumptions by identifying and developing:

- An inventory of land, water, and air transportation facilities.
- An analysis of impacts on other jurisdictions, and a feedback loop to reassess land
 uses that cannot be served with available funding. Each local jurisdiction
 planning under the GMA is required to identify the effect of its land use decisions
 on the state highway system.
- Current and future transportation needs.
- A realistic funding analysis.

Other key components are plans developed by special transportation districts, such as transit agencies and port districts. These plans define the needs and services to carry out these special purpose government missions.

The County Road Administration Board (CRAB) helps county governments meet their transportation planning responsibilities through direct technical support, research on current issues with framework plans, workshops, and discussion papers. More information is online at:



^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

WSDOT Regional Offices work with counties and cities when they update the transportation element of their comprehensive plans to coordinate state and local interests. They should also encourage local governments to consider potential impacts to state-owned and state-interest transportation facilities and services in Environmental Impact Statements prepared for a comprehensive plan or plan update.

230.03 Metropolitan Transportation Plans

In Washington, Metropolitan Planning Organizations (MPOs) have a major role in transportation planning as required by federal statutes (23 USC 134 and 49 U.S.C. 1607). Each urbanized area with a population 50,000 or more must have such an organization to receive federal transportation capital or operating assistance. The purpose of an MPO is to provide a forum for cooperative transportation decision-making by local and state governments. The products of this ongoing cooperative, comprehensive transportation planning process are plans and programs consistent with the comprehensively planned development of the urban area.

A map showing all Metropolitan Planning Organizations and Regional Transportation Planning Organizations in the state is online at:

http://www.wsdot.wa.gov/ppsc/planning/RTPO.htm

Each MPO has a transportation policy committee of elected officials of the counties and cities in the area. The MPO may have a technical committee of staff from local public works and planning agencies. WSDOT is represented on the policy and technical committees concerning transportation in each MPO.

The MPO is required to prepare an annual work program that describes its planned transportation and transportation-related activities. The federal government provides part of the funds for these plans and studies, with the remainder from local sources.

The products of this urban planning process are:

- A metropolitan transportation plan for the area describing policies, strategies, and facilities or changes in facilities.
- A transportation improvement program (TIP) that is usually a six-year program of projects including an annual or biennial element.
- The annual or biennial element consists of a list of transportation improvement projects proposed for implementation during the first one or two years of the TIP.

230.04 Regional Transportation Plans

Regional transportation plans are developed by Regional Transportation Planning Organizations (RTPOs), which are forums for local governments and the State to coordinate the planning of regional transportation facilities and services, as authorized under Chapter 47.80 RCW. An RTPO is created through the voluntary association of local governments in a region. Member jurisdictions determine their own structures to ensure equitable representation among local governments and to allow flexibility across the state. A map showing all of the RTPOs and MPOs in the state is online at:

http://www.wsdot.wa.gov/ppsc/planning/RTPO.htm

A WSDOT RTPO Transportation Planning Guidebook is available online at:



http://www.wsdot.wa.gov/ppsc/planning/RTPOmanual/planningmanual.pdf

RTPO Membership and Designation - Each RTPO must include at least one county and serve a population of at least 100,000. Regions may be formed in areas with less than 100,000 population if a minimum of three geographically contiguous counties are linked. RTPOs must include all counties in the region, and at least 60 percent of the cities and towns representing at least 75 percent of the population of the cities and towns, as well as tribal governments and school districts.

In areas where there are Metropolitan Planning Organizations (MPOs) as required by the federal government, the RTPO and MPO must be the same organization. WSDOT verifies the designation of each RTPO to ensure that all state requirements are met.

Each RTPO must establish a Transportation Policy Board whose membership includes representatives from the member counties, cities and towns. Some RTPOs also include other transportation interests, such as major employers, WSDOT, transit providers, and port districts within the region. State legislators are ex officio members. RTPOs are encouraged to form Technical Advisory Committees.

RTPOs ensure consistency of the transportation element of local comprehensive plans with the Regional Transportation Plan.

Lead Planning Agency –RTPOs are required to designate a lead planning agency, which may be a regional council, county, city, town agency, or a WSDOT regional office. Of the 14 RTPOs that have formed, ten have MPOs as their lead planning agencies, two have economic development agencies, one has a WSDOT regional office, and one has a county public works department. The key role of the lead planning agency is to provide staff support to the RTPO and to coordinate development of the Regional Transportation Plan.

Developing the Regional Transportation Plan – A key function of the RTPO is to develop a Regional Transportation Strategy that addresses alternative transportation modes and transportation demand management in regional corridors. The strategy includes recommended transportation policies consistent with the region's growth strategies. The RTPO also develops a Regional Transportation Plan, guided by the Regional Transportation Strategy and countywide planning policies, guidelines, and principles. With the plan as a guide, RTPOs also develop regional transportation improvement programs (TIPs), in cooperation with WSDOT, public transit operators, local jurisdictions, and tribal governments. TIPs are proposed regionally significant transportation projects and programs and transportation demand management measures.

230.05 **Exhibits**

None.

240.01 Introduction 240.02 Plan Components

240.03 **Exhibits**

Key to Icon



Web site.*

240.01 Introduction

Adoption of a comprehensive, balanced statewide transportation plan is one of the primary responsibilities of the Washington Transportation Commission under RCW 47.01.071. Washington's Transportation Plan (WTP) is a blueprint for transportation programs and spending for a 20-year period.

The WTP addresses transportation facilities owned and operated by the state: state highways, the Washington State Ferries, and state-owned airports. It also addresses facilities and services that the state has an interest in because they are vital to the entire transportation system. These are: public transportation, freight rail, intercity passenger rail, marine ports and navigation, bicycle and pedestrian travel, and aviation. System plans for each of these transportation modes are components of the WTP.

The WTP is developed with extensive public involvement and in cooperation with WSDOT Regions and divisions; MPOs and RTPOs; tribes; cities and counties; transit officials; and representatives of private carriers.

The WTP is updated every four to six years in response to changing federal and state legislation, updated growth and revenue projections, and emerging issues. The current WTP was adopted in February 2002, covering the period from 2003 to 2022. Component system plans are also updated at regular intervals.

For information on the WTP, the current update process, and corridor planning, see the WSDOT web site:



http://www.wsdot.wa.gov/

Click on Transportation Plan (WTP).

Or by direct link:



http://www.wsdot.wa.gov/planning/wtp/

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

240.02 Plan Components

(1) State Highway System Plan

The State Highway System Plan (HSP) provides service objectives and strategies for maintaining, operating, preserving, and improving our state highways. Updated every two years, the HSP defines service level objectives, action strategies, and costs.

The HSP describes the major highway programs including highway maintenance (Program M), traffic operations (Program Q), highway preservation (Program P), highway improvement (Program I), highway safety (Subprogram I2), economic initiatives (Subprogram I3), and environmental retrofit (Subprogram I4).

The objective of the environmental retrofit subprogram is to retrofit state highway facilities to reduce existing environmental impacts. The environmental retrofit program is in addition to WSDOT's commitment to mitigate environmental impacts of all highway system projects.

The environmental retrofit subprogram focuses on:

- Noise Barriers Adding noise mitigation along state highways where neighborhoods are exposed to unacceptable noise levels as defined by federal statute.
- *Fish Passage* Targeting the removal of fish barriers along state highways.
- Stormwater Discharge Constructing new stormwater treatment facilities to treat runoff from untreated pavements.
- Air Quality Implementing all transportation control measures identified in the SIP.
 Currently, there are no transportation control measures specifically identified in either the SIP or the HSP.
- *Chronic Environmental Deficiencies* Addressing recent, frequent, and chronic maintenance and/or repair problems in the state transportation infrastructure that are causing impacts to fish and fish habitat.

For information on the state highway system, see WSDOT's web site:

http://www.wsdot.wa.gov/ppsc/

Click on Highway System Plan, then Highway System Plan 2003-2022.

Or by direct link:

http://www.wsdot.wa.gov/ppsc/hsp/pdf/HSP-2003-2022.pdf

(2) State Ferry System Plan

The State Ferry System Plan has three service objectives: ferry system maintenance, ferry preservation, and ferry system improvements. WSDOT also has prepared a Long-Range Ferry Plan for developing ferry capacity. Information on WSF is online at:

http://www.wsdot.wa.gov/Ferries/

(3) State Airport System Plan

The State Airport System Plan has three service objectives: airport maintenance, airport preservation, and airport improvement. WSDOT manages 16 airports

across the state that serve as staging areas for search and rescue operations and provide emergency landing sites for aircraft in distress.

(4) Washington State Intercity and Rural-to-Urban Public Transportation Network Plan

This upcoming plan will supersede the Washington Intercity Public Transportation Network Plan dated July 1999. The new plan will identify intercity public transportation needs and prioritize public investment on a network basis. Primary objectives of the plan include the identification and filling of service gaps, enhanced coordination and connectivity between public and private sector services, and the consistent assessment of unmet needs at the regional level.

(5) Washington State's Long-Range Plan for Amtrak Cascades

WSDOT's long-range master plan for the development of higher-speed intercity passenger rail service between Portland, Seattle, and Vancouver, BC is being updated. The plan includes service goals, ridership and revenue projections, capital project descriptions and cost estimates, equipment requirements, and service increments that could be added over time if funding is available. The plan will be available at:

http://www.wsdot.wa.gov/rail

(6) Freight Rail System Plan

The Freight Rail System Plan has three service objectives:

- Ensure adequate mainline freight capacity and safety and enhance access to and capacity of intermodal terminals.
- Preserve and enhance service on branch lines, promote continued service on light density lines, and preserve essential lines threatened with abandonment.
- Identify and preserve essential rail corridors for future rail service.

(7) Marine Ports and Navigation System Plan

The Marine Ports and Navigation System Plan has five service objectives:

- Increase Washington ports' share of the West Coast trade and support the development and growth of port related tourist activities.
- Ensure adequate landside access to and capacity of intermodal terminals.
- Ensure adequate waterside access to and capacity of transportation routes.
- Facilitate and support port actions and investments in port districts that increase speed and efficiency of intermodal transfers.
- Enable marine ports to continue to operate and expand within their shoreline locations while adequately protecting the natural environment.

(8) Bicycle and Pedestrian Transportation Plan

The Bicycle and Pedestrian Transportation Plan has two service objectives:

- Improve bicycle and pedestrian safety.
- Increase the use of bicycling and walking for transportation purposes, principally utilitarian and commuting trips and connections to intermodal facilities.

(9) Aviation System Plan

The Aviation System Plan has five service objectives:

- Ensure adequacy and improve general aviation facilities to meet current and future growth and demand in support of the state's trade and economic vitality.
- Promote the development of adequate air carrier airport facilities, both airside and landside to meet preservation, growth, and safety needs.
- Ensure the highest level of aviation safety.
- Provide emergency response capability and public safety through search and rescue and by maintaining, preserving, and improving a system of general aviation and commercial aviation services and facilities.
- Facilitate compliance by pilots, aircraft owners, and airport operators with state aviation regulations to ensure safe aviation and provide funding for general aviation services and facilities.

Information on the Aviation Division is online at:

http://www.wsdot.wa.gov/Aviation/

240.03 Exhibits

None.

300.01	Introduction
300.02	Process Overview
300.03	Organization of Part 3
300.04	Environmental Issues in Project Scoping and Programming
300.05	Abbreviations and Acronyms
300.06	Glossary
300.07	Exhibits

Key to Icon



Web site.

300.01 Introduction

Part 3 covers the evolution of transportation projects from their conceptual stage after Transportation Planning, through Project Scoping and Programming, when they become better defined and are prioritized for funding.

300.02 Process Overview

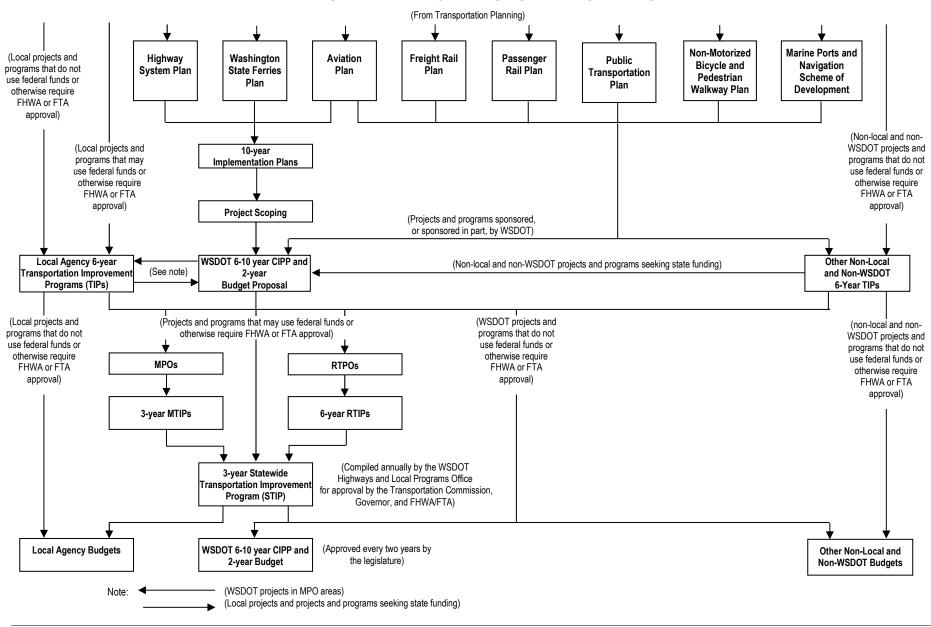
Figure 300-1 shows how Project Scoping and Programming relates to preceding and succeeding phases in the WSDOT Transportation Decision-Making Process, and **Figure 300-2** shows the Project Scoping and Programming process itself. During this phase, WSDOT develops a medium-range implementation plan for each of the primary transportation system components, highways, ferries, and state-owned airports. It engages in Project Scoping and some additional programming to develop a six to ten year Capital Improvements and Preservation Program (CIPP) and a two-year budget proposal for each state-owned component (and some state-interest components as well) for consideration by the Legislature.

Figure 300-1: Project Scoping and Programming Phase

EPM Part 2	EPM Part 3			EPM Part 4	
Transportation Planning Phase	Project Scoping and Programming Phase				Design and Environmental Review Phase
	Medium Range Implementation Plans	Project Scoping	MPO / RTPO and WSDOT Transportation Improvement Programming	WSDOT 6-10 Year CIPP and 2-Year Budget	

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Figure 300-2: Project Scoping and Programming



An overview of the process is described here in more detail for highways.

To begin the process, the Headquarters Systems Analysis and Program Development Office develops a Ten-Year Implementation Plan for highway preservation and improvement program projects listed in the Highway Systems Plan.

For all projects in the Ten-Year Implementation Plan that are expected to begin design or construction in the next six years, Headquarters Program Development, an office within the Systems Analysis and Program Development Office, directs WSDOT divisions and regional offices to prepare a scope, schedule, projected performance outcome, and budget. Project scoping involves:

- Identifying the highway problem or need.
- Defining a project purpose.
- Identifying and evaluating alternative solutions to find the most cost-effective and environmentally acceptable solution.
- Defining the scope of the proposed solution, with a cost estimate and benefit/cost analysis.
- Preparing a draft Project Summary to document the results of the process. A Project Summary includes three documents: Project Definition, Design Decisions Summary, and Environmental Review Summary.

Upon completion of the scoping process, Headquarters Program Development creates lists of prioritized projects for each objective (project type) in the Highway System Plan based on each project's benefit/cost, constructability issues, and performance change. Program Development uses the constructability analysis to combine high priority projects into a single contract during the development of budget scenarios for department executives and the Governor.

The Governor submits the proposed budget, including a list of proposed projects in the Highway Construction Program, to the Legislature for consideration of funding authorization. Because the Highway Construction Program includes state and federal dollars, many projects are funded with federal aid, and they must be dealt with in accordance with the Washington State Federal-Aid Stewardship Agreement between WSDOT and FHWA, which is available at:



http://www.wsdot.wa.gov/TA/Reports/WA Stewardship.pdf

During recent years, available state funding has decreased for several reasons, and high priority state-funded projects were converted to federal aid in order to be built.

Projects that are designated for federal funding and high priority state funded projects that are eligible for federal funds, or will otherwise require FHWA or FTA approval, are included in the Statewide Transportation Improvement Program (STIP) for approval by the Transportation Commission, Governor, and FHWA/FTA.

300.03 **Organization of Part 3**

Chapter 310 describes the Project Scoping process, during which the need and purpose for a project is defined, alternatives are evaluated, and a Project Summary is prepared for consideration in biennial budget meetings. The environmental analysis conducted during this process includes classifying the project to determine what documentation will be needed for NEPA/SEPA compliance. The chapter includes

detailed instructions for determining this classification, and references data resources and other tools available to help with the analysis. **Chapter 320** describes how WSDOT projects are programmed or prioritized for funding, which involves developing a ten-year Implementation Plan, a biennial budget proposal, and a Statewide Transportation Improvement Program (STIP) for federally funded projects of various types, including highways, ferries, and state-owned airports.

300.04 Environmental Issues in Project Scoping and Programming

Decision makers have the option to place a higher priority on certain types of investments with less environmental impact when they identify the kinds of projects that should be included in the ten-year Implementation Plan and the smaller list of projects selected for scoping. Project Managers also have this option during project scoping, when they identify alternative solutions for addressing a project purpose and need and identify a proposed solution after evaluating the alternatives to find the most cost-effective and environmentally acceptable solution.

Once a proposed solution is selected, the Environmental Review Summary is prepared, identifying potential environmental impacts, any proposed mitigation, environmental documentation requirements, and any environmental permits. This helps ensure that the full scope, schedule, and budget for any environmental work, including mitigation, is determined and included in the project duration, estimated project cost, and benefit/cost ratio recorded in the Project Definition. Also, if a Cost Risk Assessment is conducted for the project, the full range of costs or cost savings associated with any environmental risks or opportunities can be identified.

These procedures are described in **Chapter 310** and **Chapter 320**, and a link to copies of the Project Definition, Design Decision Summary, and Environmental Review Summary forms is available online at:



http://www.wsdot.wa.gov/environment/compliance

300.05 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 3** are listed below. Others are found in the general list in **Appendix A**.

CE Categorical Exclusion (NEPA) or Categorical Exemption (SEPA)

CFR Code of Federal Regulations

CIPP Capital Improvement and Preservation Program

CRA Cost Risk Assessment

DCE Documented Categorical Exclusion (NEPA)

EA Environmental Assessment

EBASE Estimate and Bid Analysis System
ECS Environmental Classification Summary

EIS Environmental Impact Statement
ERS Environmental Review Summary
ESO Environmental Services Office
FHWA Federal Highway Administration
FTA Federal Transit Administration
GIS Geographic Information System
HOV High Occupancy Vehicles

LAG Local Agency Guidelines

MPO Metropolitan Planning Organization
NEPA National Environmental Policy Act
PATS Priority Array Tracking System
PS&E Plans, Specifications, and Estimates

RTPO Regional Transportation Planning Organization

SAC Signatory Agency Committee SEPA State Environmental Policy Act SIP State Implementation Plan

STIP Statewide Transportation Improvement Program

TDM Transportation Demand Management

SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation Equity Act:

A Legacy for Users

TIP Transportation Improvement Program
TMA Transportation Management Agency

300.06 Glossary

A glossary of terms used in **Part 3** are listed below. See **Appendix B** for a general glossary of terms used in the EPM.

Federal Nexus – A project has a federal nexus when there is a connection with the federal government; i.e. when any of the following occur: federal land is within the project area, federal money is used in the project, or federal permits or approvals are required as part of the undertaking.

300.07 Exhibits

None.

310.01	Introduction
310.02	Defining the Need and Purpose for a Project
310.03	Identifying and Evaluating Alternative Solutions
310.04	Preparing a Project Summary
310.05	Preparing the Environmental Review Summary
310.06	Environmental Database Resources
310.07	Project Classification
310.08	Project Scoping Meetings
310.09	Exhibits

Key to Icons

Web site.*

Interagency agreement.

310.01 Introduction

Project scoping is done on an ongoing basis for all projects in the Ten-Year Implementation Plan that may be scheduled to begin design or construction in the next six years. Keeping scoping current allows WSDOT to produce a six-year Capital Improvement and Preservation Program at any time to satisfy the requirements of Chapter 47.05 RCW. The results of the scoping process are used in Project Programming to prioritize projects for funding in the next budget request to the legislature (see Chapter 320).

Project Scoping is not to be confused with EIS scoping, which is addressed in **Chapter 411**. It involves:

- Defining the need and purpose for a project.
- Identifying and evaluating alternative solutions to find the most cost-effective and environmentally acceptable proposed solution.
- Preparing a Project Summary to document the results of the process and define the overall "scope" of the proposed solution.

Each Project Summary includes three documents:

- Project Definition Identifies the project purpose and need, proposed solution, estimated cost (including the cost of design and construction as well as environmental review, permitting, and mitigation), and a benefit/cost ratio for the project, which includes the projected change in system performance.
- Design Decisions Summary Identifies the current conditions and general design parameters for a proposed solution (e.g. route, length of road segment, lane width, paving depth). It also lists any deviations from design standards for the type of

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- project. Projects must meet design standards with approved deviations in order to be eligible for federal funding.
- Environmental Review Summary Identifies potential environmental issues and impacts, any proposed mitigation, and any NEPA/SEPA documents and permits that are likely to be required. A preliminary project delivery schedule is also developed at this time in order to determine the duration of the pre-construction and construction phases for the project. A Cost Risk Assessment may be conducted (primarily on major projects) to determine the full range of potential costs.

Under NEPA and SEPA, projects are classified as either Class I (Environmental Impact Statement required), Class II (Categorically Excluded or Exempt), or Class III (Environmental Assessment or SEPA Checklist required) to determine whether environmental impacts will be significant. Under SEPA, the Class III action is roughly equivalent to making a threshold determination of non-significance. WSDOT has developed an extensive online GIS database that is useful for preliminary environmental analysis and project classification during Project Scoping (see Section 310.06).

When appropriate for budget development, each Region may also hold a project scoping meeting where draft project summaries are discussed with federal and state resource agencies, Tribes, and local municipalities. Based on their feedback, a final Project Summary is prepared so the Transportation Commission, Governor, and Legislature will understand the level of analysis and development required for each project, including the recommended level of environmental analysis (i.e., categorical exemption/exclusion, environmental assessment, or environmental impact statement).

310.02 Defining the Need and Purpose for a Project

The first step in Project Scoping is to define the need and purpose for a project. Since project funding is limited to solving deficiencies identified in the Highway Systems Plan, projects that solve major deficiencies or multiple deficiencies are likely to receive a higher priority for funding in Project Programming. Therefore, it is important to identify all the deficiencies, including any environmental deficiencies, or problems, that a project might solve. Examples of environmental deficiencies include a lack of adequate existing stormwater control, habitat connectivity problems like a fish passage barrier, existing noise problems caused by the highway, and chronic environmental deficiencies like bridge scour and road washouts caused by river bank erosion. After these are identified, the overall purpose of the project, which may be to solve multiple problems, can be defined.

310.03 Identifying and Evaluating Alternative Solutions

The second step in Project Scoping is to identify and evaluate alternative ways to solve the deficiencies identified in the first step. There are multiple ways to solve highway deficiencies, some of which do not even involve changes to the highway itself, and some may be more cost-effective and environmentally acceptable than others. In addition, there are often multiple ways to address each aspect of a particular deficiency, and each alternative needs to be evaluated in order to identify the best solution.

Several tools are available to assist in evaluating alternative solutions:

- Cost and Feasibility Analysis Studies may be needed during scoping to compare
 alternatives in terms of their cost-effectiveness, level of benefit, and acceptance.
 Cost estimates for alternative solutions may be created using WSDOT's Estimate
 and Bid Analysis System, EBASE, and Headquarters Systems Analysis and
 Program Development Office has developed a list of analyses that may be
 appropriate for determining the feasibility and level of benefit for various types of
 highway projects. Information about EBASE is available on-line at:
 - http://www.wsdot.wa.gov/eesc/design/projectdev/AdReady/EBASE.htm
- GIS Workbench Tool for identifying and evaluating the environmental effects of alternative solutions. See Section 310.06 for details.
- Analysis of Project Duration WSDOT's Project Delivery Information System
 (PDIS) project scheduling software can be used to prepare a project schedule for
 each alternative. The schedule should include time required for pre-construction
 and construction, with particular attention to the time needed for environmental
 review and permitting. The PDIS is discussed online at:
 - http://www.wsdot.wa.gov/Projects/ProjectMgmt/

<u>In addition, some example critical path timelines for environmental work on hypothetical projects requiring different levels of environmental review are available at:</u>

- http://www.wsdot.wa.gov/environment/compliance
- Cost Risk Assessment (CRA) For major projects, the CRA may be needed to determine the full range of potential costs, or cost savings, including those associated with environmental risks and opportunities. The range of costs submitted for consideration by decision-makers should reflect any uncertainty as to whether any environmental problems will be encountered during environmental review or permitting. Examples include whether the need for an unanticipated EIS or permit may be identified during environmental review; whether an unknown hazardous material or cultural resources may be discovered during construction; or whether some cost savings might be realized, such as through partnering on mitigation. More information on CRA and WSDOT's Cost Estimating Validation Process is online at:
 - http://www.wsdot.wa.gov/Projects/ProjectMgmt/

310.04 Preparing a Project Summary

Once a proposed solution for achieving the project purpose has been identified, a Project Summary is prepared to document the results of the scoping process and define the overall scope of the proposed solution in terms of the work and material involved, including any environmental review and permitting work and mitigation, plus a cost estimate and performance outcome, and/or benefit/cost ratio, for the project. The Project Summary has three components:

- Project Definition
- Design Decisions Summary
- Environmental Review Summary

Preparation of the Project Summary ensures that regional staff have considered all major costs of the project, including both engineering and environmental factors, so a realistic budget can be prepared.

A link to the Project Definition, Design Decision Summary, and Environmental Review Summary forms is available online at:

ttp://www.wsdot.wa.gov/environment/compliance

For details on this process, see Chapter 330 of the WSDOT *Design Manual* at WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Agency Publications, then Design, then Design Manual.

Or by direct link:

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For details on the Local Agency Guidelines (LAG) Project Summary process and forms, see WSDOT's web site:

http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.HTM

For details on the options for dealing with any utility relocation work, and anticipating any related environmental review and permitting work during Project Scoping, see **Exhibit** 310-1.

(1) Project Definition

The Project Definition form includes:

- Deficiencies or needs addressed by the project and whether the deficiencies are included in the 20-year Highway System Plan (or equivalent for other modes) or 10-Year Implementation Plan.
- Statement of purpose.
- Proposed strategy (description of work by road segment).
- Right-of-way or relocation requirements.
- Duration of pre-construction and construction phases.
- Estimated project costs. As stated in Section 310.03, these can be derived from historical data in EBASE. However, on large, unique, or high risk projects, or projects with a lot of public attention, it may also be appropriate to conduct a Cost Risk Assessment (CRA) to determine the full range of potential costs or cost savings (including any that might be associated with environmental risks or opportunities). For instance, if there is any uncertainty as to whether any environmental problems will be encountered in environmental review or permitting (such as an EIS or unanticipated permit being required) or in construction (such as some unknown hazardous materials or cultural resources being discovered), or if some cost savings might be realized (such as through partnering on mitigation), these should

be conveyed as a range of costs for consideration by decision-makers. For more information on Cost Risk Assessment and WSDOT's Cost Estimating Validation Process, see:

http://www.wsdot.wa.gov/Projects/ProjectMgmt

 Benefit/cost ratio. Benefit/cost and performance analyses are prepared for all highway projects so they can be compared and prioritized in Project Programming, and environmental considerations are a factor in the benefit/cost analyses for certain types of projects (e.g. projects that retrofit fish passage barrier culverts). For more information see the WSDOT Programming and Operations Manual at:

http://www.wsdot.wa.gov/FASC/EngineeringPublications/Manuals/P OManual.pdf

(2) Design Decisions Summary

The Design Decisions Summary is prepared with the guidance of the Design Matrix (see WSDOT's *Design Manual* (M-22-01)). Design matrices are used to identify the design level(s) for a project and the associated processes and approval authority for allowing design variances. The matrices address the majority of preservation and improvement project types and focus on those design elements that are of greatest concern for project development.

The Design Decisions Summary includes:

- Geometrics and traffic
- Access control designation
- Roadway geometric data (existing and proposed) compared to standard
- Pavement requirements
- Roadway preservation
- Roadside restoration
- Improvements (safety and hydraulics)
- Deviations from the design matrix
- Design variance inventory

(3) Environmental Review Summary

The Environmental Review Summary allows the regional environmental staff to consider, at this early stage, any potential impacts and mitigation, required permits and approvals, and what form the environmental review documentation for the project will take. If the project scope is revised before the project is included in a biennial budget request, the design office consults with the regional environmental staff to verify that the environmental classification and other information is still correct.

310.05 Preparing the Environmental Review Summary

The Environmental Review Summary (ERS) form is found in the Project Summary database in each Regional Office. It is completed by the regional environmental staff at the request of regional design staff. On a project that is categorically excluded or exempt (CE) under NEPA and/or SEPA, the signed ERS, with any required

documentation, is retained within the Region and serves as the environmental document for the project. For a NEPA Documented CE, which requires FHWA approval, the ERS serves as a draft document, and is replaced by an identical form, called the Environmental Classification Summary (ECS), which requires FHWA signature. This signed ECS serves as the environmental classification document for the project for FHWA purposes, as explained in Section 310.07.

In completing Part 4 of the ERS, Environmental Considerations, it is advisable to attach a technical memo to explaining any assessments leading to a determination that the project should be classified as a Categorical Exemption or Documented Categorical Exemption. For guidance on the level of environmental documentation needed for a particular element of the environment, see **Chapter 420** through **Chapter 470**, in the Technical Guidance section under Discipline Reports.

Instructions for completing the Environmental Review Summary are online at:

http://www.wsdot.wa.gov/eesc/design/projectdev/projectsummary/PSECS1.pdf

The WSDOT GIS Workbench, which provides data needed for the "Environmental Considerations" section of the form, is described below in **Section 310.06**. Guidance on project classification for NEPA/ SEPA purposes is found in **Section 310.07**.

For details on required environmental review procedures, see **Chapter 410** through **Chapter 480**. For details on permits and approvals, see **Chapter 510** through **Chapter 550**.

310.06 Environmental Database Resources

(1) WSDOT's GIS Workbench

WSDOT's GIS Workbench is an internal data system developed for use by WSDOT staff in preparing the Project Summary, particularly the "Environmental Considerations" portion of the ERS. The workbench is a user-friendly interface covering a wide range of environmental resources gathered from a variety of public agency and WSDOT sources.

The database has over 500 layers of environmental and natural resource management data, in the following major data categories:

- *General reference* Transportation routes, political and administrative boundaries, major public lands, geographic reference.
- Environmental data Air quality, fish and wildlife, priority species and habitats, geology and soils, groundwater and wells, hazardous materials, hydrography, plants, and water quality.

WSDOT users can access these data sets through the GIS Workbench. For information on how to access the Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog

Or by direct link:



http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

A six-hour training session has been developed to provide WSDOT staff with starter knowledge of ArcView, the GIS Workbench tool and the environmental data available through the tool.

The data provided to WSDOT staff through the GIS Workbench is sufficient for Project Summary purposes.

Accessing the GIS Workbench (a)

WSDOT staff wishing to access this GIS application should contact their Information Technology Manager (or equivalent), and ask for ArcView and the GIS Workbench Extension. Geographic Services provides WSDOT employees with basic training on ArcView, and the ESO provides technical support and information regarding the data available through this interface.

At this time, there are no plans to provide this interface to the general public or to WSDOT consultants.

(b) Expansion of GIS Workbench

GIS resources for environmental data are expanding rapidly. WSDOT staff works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. New data resources are being incorporated into the WSDOT GIS Workbench. To facilitate getting the best data into the system, please contact the ESO's Environmental Information Program with information about newly identified data resources.

What is a GIS Data Set? **(2)**

A Geographic Information System (GIS) data set is data that describes and locates geographic features and stores an Earth-based delineation of those features. GIS data sets are used to track information about things on the ground, typically organized by geographic features (e.g. stream, watershed, city, county). Using common tabular database technology, GIS links data tables and records with graphical representations (maps) of real-world features. These features are stored using coordinate values correlated with the Earth's surface. This allows tabular information to be stored as a characteristic of a place or geographic feature and then be cross-referenced to other information based on common geographic location.

(3) Using Online GIS Databases

The data needed for transportation project environmental impact analysis often can be retrieved from a GIS database. Many public agencies and nongovernmental organizations now focus their mapping functions on building GIS databases rather than physically publishing maps or reports. For example, U.S. Fish and Wildlife Service's National Wetlands Inventory data are available through several web sites and via the WSDOT GIS Workbench.

Generally, if the online data is sufficient for the purpose, there is no need to acquire paper versions from the same agency. However, agencies often still produce and distribute standardized paper maps and reports produced using their GIS systems. They also often provide copies of the GIS data as a product.

When required data is available through a GIS, it may be reviewed either online or on paper printouts. Direct use of the GIS database enables ad hoc inquiries that generate information not found in pre-designed, standard products.

The GIS may or may not be the best available source for some environmental data. Whether the environmental data is obtained from paper products or digital ones, the information has the same value and is equally appropriate for use in reviewing projects.

(4) Citing a GIS Database

The GIS data system itself should be cited as a reference whether the data is provided on paper or digitally. Proper form for citations referring to digital database is evolving, but typically includes the name of the data system, the name of the agency that maintains/updates the database, and date of the data retrieval. If the data comes from an Internet web site, the title of the site should be included with the full Uniform Resource Locator (URL).

310.07 Project Classification

Based on the environmental considerations identified during preparation of the Environmental Review Summary, WSDOT projects are classified for NEPA/SEPA purposes to determine the type of environmental documentation that will be required. Projects with a federal nexus (using federal funds, involving federal lands, or requiring federal approvals or permits) are subject to NEPA and SEPA. Projects that are state funded only, with no federal nexus, can just follow SEPA guidelines. Since many WSDOT projects are prepared with intent to obtain federal funding, NEPA guidelines are usually followed. The sections below define the three classes of projects and list types of work typically found in each class, FHWA/federal agency concurrence required, and procedures for classifying and, if necessary, reclassifying projects.

(1) Classification System

(a) NEPA Classifications

All projects subject to NEPA are classified as either Class I, II, or III. Class I projects require preparation of an EIS because the action is likely to have significant adverse environmental impacts. Class II projects are categorical exclusions (CE) or Documented Categorical Exclusions (DCE) that meet the definitions contained in 40 CFR 1508.4. These are actions that are not likely to cause significant adverse environmental impacts. FHWA and WSDOT have agreed in a Memorandum of Understanding to a programmatic approach, classify as categorical exclusions any actions identified in 23 CFR 771.117, as long as criteria in the regulations and conditions listed in the MOU are met. Determinations made by WSDOT under this blanket classification do not require further approvals by FHWA, and will be documented in the Project Summary. Environmental classification of all projects will be identified on project authorization

submitted to FHWA but documentation for projects identified as CEs under this MOU does not need to be submitted. On DCE projects where the use of federal funds is proposed or other federal nexus is present, FHWA must review and concur with the NEPA classification as part of design approval. For guidance on these procedures see the Memorandum of Understanding (MOU) between WSDOT and FHWA on Programmatic Categorical Exclusion Approvals (May 1999).

Class III projects require an Environmental Assessment (EA) because the significance of the impact on the environment is not clearly established.

The MOU is online via the Environmental Services Office web site:



http://www.wsdot.wa.gov/environment/compliance/agreements.htm



Memorandum of Understanding between Washington State Transportation Department and Federal Highway Administration, Programmatic Categorical Exclusion Approvals.

SEPA Classifications (b)

Under SEPA, Class I projects require an EIS; Class II projects are Categorically Exempt or require a SEPA Checklist and Threshold Determination leading to Determination of Nonsignificance; and Class III projects require a SEPA checklist and Threshold Determination leading to a Determination of Significance (DS), Determination of Nonsignificance (DNS), or Mitigated DNS. For example, a SEPA checklist may be required if additional right-of-way is acquired or environmental impacts may result from the project. See WAC 197-11 Part 3 for SEPA threshold determination criteria.

Projects classified as NEPA Categorical Exclusions (Class II) are not always categorically exempt under SEPA (WAC 197-11-305). If the project is not exempt under SEPA, WSDOT must prepare a SEPA checklist and issue a threshold determination (DS, DNS, or mitigated DNS). A NEPA Documented CE (DCE), with some additional information, may be adopted for SEPA and support a DNS, under the NEPA Documented Categorical Exclusions Implementing Agreement with Ecology (June 1996).

For NEPA Class III projects, WSDOT may adopt the NEPA EA to satisfy the SEPA requirement for a DNS. For a state-funded project, if a SEPA checklist supports a DNS, no EIS is required.

The Implementing Agreement is online via the Environmental Services Office web site:



http://www.wsdot.wa.gov/environment/compliance/agreements.htm



Implementing Agreement between the Washington State Transportation Department and the Washington State Department of Ecology Concerning Adoption of NEPA Documented Categorical Exclusions.

(2) Class I Projects (EIS)

Class I projects are actions that are likely to have significant impact on the environment because of their effects on land use, planned growth, development patterns, traffic volumes, travel patterns, transportation services, natural resources, or because they are apt to create substantial public controversy. An EIS may follow an EA if significant impacts are discovered during preparation of an EA, or may be prepared without an EA if it is evident that the project will have significant impacts. See Section 411.06 through Section 411.09 for details on EIS documents and procedures and general guidance on preparing an EIS.

Examples of projects that usually require an EIS, as defined in 23 CFR 771.115, are:

- New controlled-access freeway.
- Highway project of four or more lanes in a new location.
- New construction or extension of fixed rail transit facilities (e.g., rapid rail, light rail, commuter rail, automated guideway transit).
- New construction or extension of a separate roadway for buses or highoccupancy vehicles not located within an existing highway facility.
- Although examples are given, it is important to remember that the size and significance of the potential impacts determine the need for an EIS, not the size of the project.

Class I projects that impact waters of the United States or waters of the state and require a Section 10 permit or a Section 404 permit from the U.S. Army Corps of Engineers (Corps) must follow the requirements of the Signatory Agency Committee (SAC) Agreement to Integrate Aquatic Resources Permit Requirements into the NEPA/SEPA Process (formerly known as the "NEPA/404 Merger Agreement"). This agreement applies to all transportation construction projects in the state of Washington requiring a Corps Section 404 permit and FHWA action under NEPA and/or WSDOT action under SEPA. See Section 411.06 for details on the agreement and Section 520.02 and Section 520.03 for details on Section 404 and Section 10 permits.

(3) Class II Projects – Categorical Exclusions (CE and DCE)

Categorical Exclusions are actions that meet the definition contained in NEPA rules (40 CFR 1508.4) and, based on past experience with similar actions, do not involve significant environmental impacts. Unless specifically requested by other agencies or the public, these actions do not require an EIS or an EA.

Categorical Exclusions are actions which do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic, or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.

Class II projects are defined further by two fixed subcategories as described below. The subcategory determines the documentation and approval required.

(a) Class Il projects not requiring documentation for FHWA concurrence (CE) Projects in this subcategory, Categorical Exclusions (CE), meet the requirements of the MOU between WSDOT and FHWA on Programmatic Categorical Exclusion Approvals. A copy of this MOU is available online at:

ttp://www.wsdot.wa.gov/environment/compliance/agreements.htm

The only NEPA documentation required is a signed Environmental Review Summary that is included in the Project Summary package sent to Headquarters. No other NEPA documentation or approval by FHWA is required. However, some CE projects may require a Biological Assessment (BA), which may result in a "Letter of No Effect" on endangered species or habitat (see Section 436.05). If "No effect" is documented, the projects may qualify for inclusion under the MOU on Programmatic Categorical Exclusion Approvals.

Examples of CE projects are found in 23 CFR 771.117(c) at the FHWA web site below:



Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then Title 23 CFR, then 771, then 771.117.

Or, for a summary:

Click on FHWA Programs, then Environment, then NEPA Project Development, then Documentation, then Categorical Exclusion.

Or by direct link:

http://environment.fhwa.dot.gov/projdev/docuce.htm

(b) Class II projects requiring documentation and FHWA concurrence (DCE)

For projects in this subcategory, Documented Categorical Exclusions (DCE), additional environmental documentation is required and FHWA approval must be obtained before the design file can be approved. All environmental documentation must be completed before finalizing the Plans, Specifications, and Estimates (PS&E) package and going to ad. If indicated by the Environmental Review Summary (ERS), preliminary environmental studies are completed. The ERS is then renamed the Environmental Classification Summary (ECS), signed by the WSDOT Regional Environmental Manager, and sent with federal permits and/or documentation to FHWA for approval.

After obligation of project design (PE) funds, detailed environmental studies for CE documentation may be required for DCE projects to determine the environmental, economic, and social impacts. WSDOT then finalizes the ECS and submits it to FHWA for final approval. Examples of DCE projects are found in 23 CFR 771.117(d) at the FHWA web site below:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then Title 23 CFR, then 771, then 771.117.

Or, for a summary:

Click on FHWA Programs, then Environment, then NEPA Project Development, then Documentation, then Categorical Exclusion.

Or by direct link:



Any action that would normally be classified as a CE or DCE but could involve unusual circumstances will require the applicant, in cooperation with the FHWA, to conduct appropriate environmental studies to determine if the CE classification is proper. Such unusual circumstances include:

- Significant environmental impacts.
- Substantial controversy on environmental grounds.
- Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act (see Section 411.12, Section 455.02, and Section 456.02).
- Inconsistencies with any federal, state, or local law or administrative determination relating to the environmental aspects of the action.

(4) Class III Projects – Environmental Assessment (EA)

When the significance of the impact of a proposed project on the environment is not clearly established, an EA is prepared to determine the extent of environmental impact and to determine whether an EIS is needed. WSDOT may adopt the EA to satisfy requirements for a SEPA DNS, but the EA will not satisfy the SEPA EIS requirement. Under RCW 43.21C.150, compliance with SEPA is not required where there has been a "detailed statement" prepared under NEPA, but an EA is generally not a detailed document. Refer to the definitions of each 40 CFR 1508.9 and 40 CFR 1508.11. No EIS is required when the EA supports a NEPA Finding of No Significant Impact (FONSI). See Section 411.05 for details on EA documentation and procedure.

(5) Classification Procedure

(a) NEPA Classification Procedure

The NEPA documentation procedure occurs in several stages during project development. Generally, the path is as follows: Scoping/ERS documents, evolving to Design/ECS documents, evolving to PS&E/Permit documents, evolving to Construction.

The procedure for NEPA classification is as follows:

Once the project has been sufficiently developed to assess any
environmental impacts, the Region completes the ERS based on the
best information available at the scoping stage.

- The Regional Environmental Manager then concurs with the classification by signing the ERS and the completed form is returned to the design office for inclusion in the Project Summary package.
- If a project is determined to be a Categorical Exclusion (NEPA-CE), the NEPA environmental review process is considered complete. If it is determined that a Documented CE, EA, or EIS is required, the Region evaluates the project schedule and arranges for preparation of the appropriate document.

(b) SEPA Classification Procedure

SEPA requires no documentation with regard to categorical exemptions; therefore, the region is responsible for verifying and monitoring these projects to assure that all necessary environmental documentation is completed. The procedure for SEPA projects is as follows:

- Once the project has been sufficiently developed to assess any environmental impacts, the region completes the ERS based on the best information available.
- The Regional Environmental Manager then concurs with the classification by signing the ERS and the completed form is returned to the design office for inclusion in the Project Summary package.
- On projects funded entirely with state funds, this ends the
 environmental classification process. On projects that are
 categorized as exempt from SEPA, the environmental process is
 complete, unless the project requires biological evaluation to comply
 with the Endangered Species Act (see Section 436.05). On projects
 categorized as needing a SEPA checklist or EIS, those documents
 are prepared prior to design approval.

(6) Revision of Project Scope and Classification

See Section 411.13 for details on project re-evaluation and preparation of supplementary environmental documentation if warranted by the re-evaluation.

(a) NEPA Reclassification

Since FHWA must concur with the NEPA classification, any major change in a project classification for a project involving federal funds requires the processing of a revised ECS form. Minor changes may be handled informally, if FHWA concurs.

(b) SEPA Reclassification

When the scope of a project changes, a revised ERS is usually required. As part of that revision, the environmental classification needs to be reassessed. The decision on whether or not to revise the ERS is made by the regional environmental office in coordination with the region program management office. For many minor scope changes, a new ERS is not required. However, note to the file or a follow-up memo should then be prepared to document the revision.

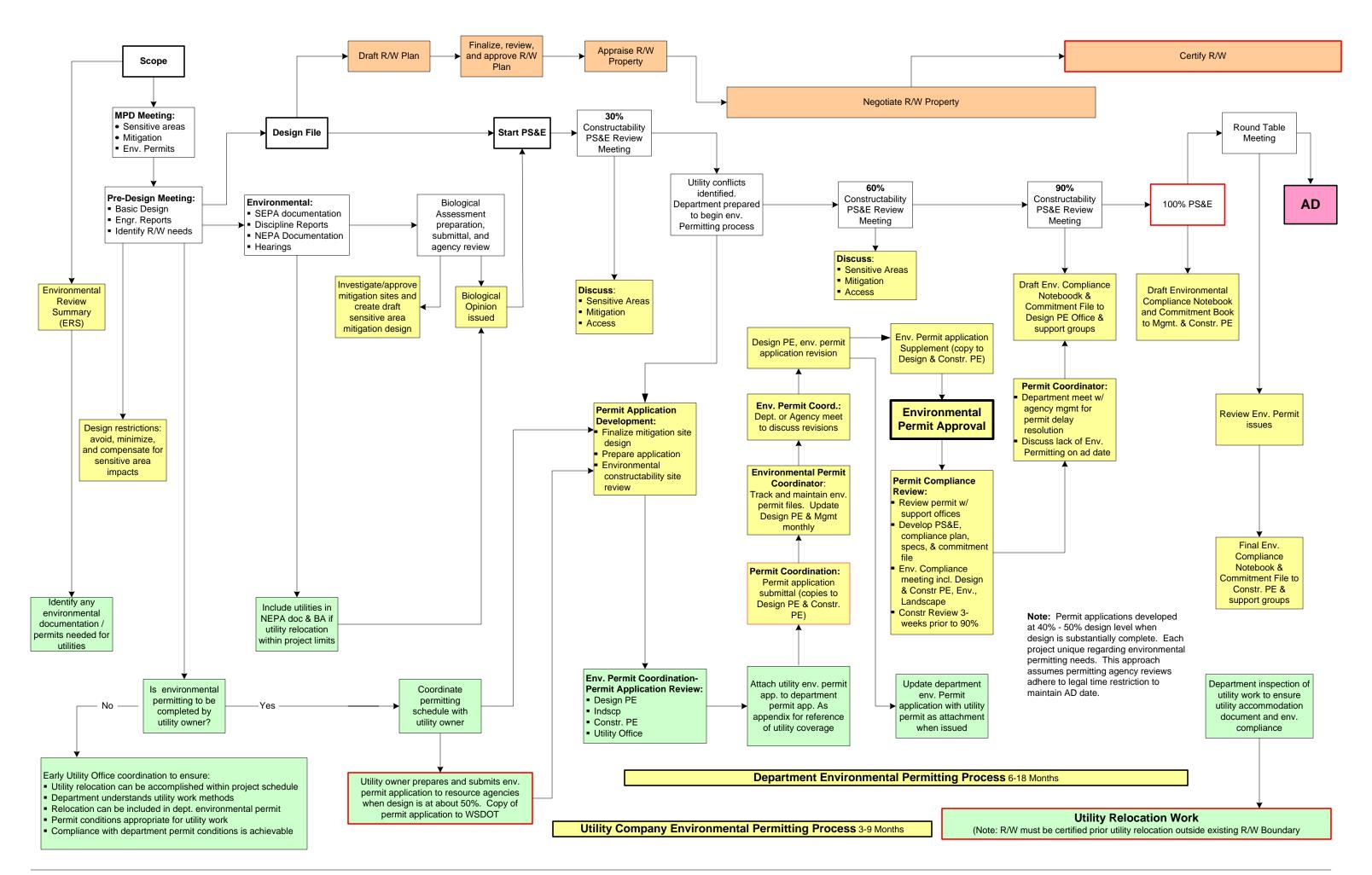
In some cases, new circumstances may cause a change in the environmental classification but not a change in scope. Any changes in classification are documented by a note to the file or a follow-up memo.

310.08 Project Scoping Meetings

When appropriate for budget development, each region may hold a project scoping meeting where draft project summaries are discussed with federal and state resource agencies, tribes, and local municipalities. Based on their feedback, a final Project Summary is prepared so the Commission and Legislature will understand the level of analysis and development required for each project, including the recommended level of environmental analysis (i.e., categorical exemption/exclusion, environmental assessment, or environmental impact statement).

310.09 Exhibits

Exhibit 310-1 – Environmental Review and Permitting for Utility Relocation.



320.01	Introduction
320.02	Ten-Year Implementation Plan
320.03	Biennial Budget
320.04	Statewide Transportation Improvement Program
320.05	Exhibits

Key to Icon



Web site.*

320.01 Introduction

Programming of WSDOT projects is required by law, and it is limited to solving state highway deficiencies (RCW 47.05.010).

As described in Section 300.02, the outcomes of the WSDOT project programming process are:

- Approval of a Statewide Transportation Improvement Program (STIP), by the Transportation Commission, Governor, and FHWA and FTA. As required by federal law, the STIP includes any project that is eligible for federal funds or may need federal approval.
- Approval by the Legislature of WSDOT six- to ten-year Capital Improvement and Preservation Program (CIPP) and two-year budget, including legislative modifications.

RCW 47.05 requires that WSDOT's priority programming system for evaluating multi-modal solutions to state highway system deficiencies include a needs analysis to identify preservation and improvement problems and deficiencies; and an evaluation of alternative solutions and project tradeoffs or comparisons. The alternatives analysis must include an estimate of the costs and benefits of proposed projects and services. Evaluating the impacts of each project on the program objectives and performance measures is an essential part of the investment comparison. Each project in the investment comparison must satisfy needs identified in the Highway System Plan.

RCW 47.05 requires that WSDOT and the Transportation Commission consider a broad range of multimodal solutions as appropriate to address identified state highway deficiencies, including but not limited to:

- Highway expansion projects
- Measures to improve highway efficiency
- Transportation facilities serving non-motorized modes
- High occupancy vehicle (HOV) facilities

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

- Transit facilities and services
- Rail facilities
- Transportation demand management (TDM) programs

320.02 Ten-Year Implementation Plan

Ten-Year Implementation Plan projects are identified through a funding and fiscal analysis that updates revenue projections for the 20-year system plan and develops a preliminary allocation of anticipated resources (see Section 300.02).

RCW 47.05 requires that investments to implement the Highway System Plan include the kinds of improvements listed in the following two WSDOT Programs: Preservation and Improvement.

The Preservation Program includes:

- P1 Roadway Embodies preservation work on roadway surfaces and shoulder and restoration of existing safety features.
- P2 Structures Comprises preservation and prevention of catastrophic failure of bridges.
- **P3** Other Facilities Includes preservation of rest areas, weigh stations, unstable slopes, and major drainage and electrical rehabilitation.

The Improvement Program includes:

- I-1 Mobility Includes projects to relieve congestion in rural and urban areas. Examples include additional general purpose lanes, truck climbing lanes, intersection improvements, route realignments, and surveillance control and driver information. Other objectives address bicycle connectivity, and the Puget Sound core HOV network.
- I-2 Safety Includes strategies to make highways safer by reducing collisions in accident corridors, and preventing collisions before they occur by bringing highways up to standards in selected high risk locations.
- I-3 Economic Initiatives Includes projects to upgrade roadway surfaces to withstand freeze-thaw effects; provide four-lane limited access highways for all roads carrying 10 million tons or more of freight per year; provide new rest areas; replace or upgrade bridges that cannot currently carry legal overloads or have vertical clearance of 15 feet six inches or less; provide interpretive sites on scenic and recreational highways; and provide for rural bicycle touring loops.
- I-4 Environmental Retrofit Provides for stormwater runoff improvements; fish passage barrier removal; rehabilitation of WSDOT assets to correct chronic environmental deficiencies; noise abatement projects; and air quality improvement.

In addition to these ongoing WSDOT programs, there are two subprograms, which are funded for specific purposes:

I–6 Sound Transit –Sound Transit provides funding to improve transit access to state highways in the Puget Sound area.

I-7 Tacoma Narrows – The objective of this subprogram, added in the 1999-2001 biennium, is to improve mobility along the SR-16 Tacoma Narrows Bridge corridor by partnering with private firms to design and build improvements.

Two other WSDOT programs have their own project scoping and programming processes for capital improvements:

W – Washington State Ferries Construction

F – Aviation

Others are typically funded as a program, instead of project-by-project, although they do engage in on-the-ground project-type work. These programs are:

D – Highway Management and Facilities

K – Economic Partnerships

M - Highway Maintenance and Operations

Q – Traffic Operations

R – Sales and Services to Others

X – Washington State Ferries Operations and Maintenance

Y – Rail Programs

Z – Highways and Local Programs

320.03 Biennial Budget

All projects, including road and ferry projects in WSDOT's biennial budget, must be tied to the Washington Transportation Plan. They are also tied to medium range implementation plans like the 10-Year Implementation Plan for highway projects. Every two years, the budget and system plan are reviewed to consider the addition of new service objectives, action strategies, and programs to address highway deficiencies. Conversely, as service objectives are met or further refined, existing programs may be modified or eliminated in future Highway System Plan documents and biennial budgets.

320.04 Statewide Transportation Improvement Program

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires Transportation Improvement Programs (TIPs) to be prepared by Metropolitan Planning Organizations (MPOs) and Transportation Management Agencies (TMAs), such as the Puget Sound Regional Council, and approved by the FHWA and the Federal Transit Administration (FTA). (See Chapter 230.)

The Statewide Transportation Improvement Program (STIP) includes:

- All TMA TIPs
- All MPO TIPs
- A TIP for the remainder of the state

Agencies involved in preparing the STIP include local governments, RTPOs, TMAs, MPOs, WSDOT, transit agencies, and the Governor's Office.

WSDOT's Highways and Local Programs Office has lead responsibility in developing guidelines and procedures for preparing the STIP and manages STIP amendments and financial feasibility throughout the year.

For details, see WSDOT's web site:



Click on Search, then Site Index, then H, then Highways and Local Programs, then STIP under Program Management.

Or by direct link:

http://www.wsdot.wa.gov/TA/ProgMgt/STIP/STIPHP.htm

(1) STIP Requirements

TIPs prepared by transportation management agencies or MPOs include all federally funded projects in the region (including projects on native lands). Projects for TIPs are selected based on each agency's long-range plan, need, priority rating defined by a clear set of criteria, and the availability of funds. TIPs usually are prepared annually and provide a three-year "window" for projects at both the regional and statewide levels. They must be prepared at least every two years.

In air quality nonattainment areas, projects funded with state or local funds must be included in the TIP as well. This is to ensure that Washington's TIPs reflect important changes to the transportation system with potential air quality impacts. (See Chapter 425 for details.)

The current STIP contains federally funded projects plus state and local regionally significant projects programmed for calendar year 2005 through 2007. These projects have been identified through the planning process as the highest priority for the funding available to the state's transportation program.

The STIP also includes state and local roadway, bridge, bicycle, pedestrian, safety and public transportation (transit) projects. Eligible activities include project-related activities, such as preliminary engineering, right-of-way acquisition, and construction for roadways, and capital and operating expenses for public transit. Projects are organized in alphabetical order by MPO, county and lead agency, and are shown in a standardized format, which includes similar information for each project.

In Washington, most of the TIPs and the STIP have been developed on a yearly basis. A two-year budget is developed in even years and approved in approximately May of odd years. A supplemental budget is developed on the off-year. Puget Sound Regional Council, the largest MPO in the state, develops its TIP on even years, and a major amendment on odd years. The timing of the STIP process results in its approval in advance of the two-year budget. Most projects in the two-year budget are also in the approved STIP, although some must be added by amendment. The development of the TIPs includes an extensive public involvement process.

(2) STIP Contents

Following are the basic required elements of the STIP:

- Identifies all proposed highway and transit projects in the state funded under title 23 USC and the Federal Transit Act, including Federal Lands projects.
- Incorporates the metropolitan transportation improvement programs approved by the TMAs and MPOs.
- In carbon monoxide, ozone, or PM_{10} non-attainment areas, includes projects that conform with the State Implementation Plan (SIP).
- Maintains consistency with expected available funding.
- Identifies selection priorities developed with appropriate consultation and/or coordination with local jurisdictions, metropolitan planning organizations, and Federal Lands agencies.
- Contains all regionally significant transportation projects requiring FHWA or FTA approval, regardless of funding.
- Meets the requirements of 23 USC 135(f), Statewide Planning, coordination with local jurisdictions, and review by FHWA.

320.05 Exhibits

None.

400.01	Introduction
400.02	Process Overview
400.03	Organization of Part 4
400.04	Abbreviations and Acronyms
400.05	Glossary
400.06	Exhibits

400.01 Introduction

Part 4 covers the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process. During this phase, much of the design work and environmental analysis and documentation requirements for a project are completed, and work on permits often begins. For any project funded by the legislature, this phase begins after Project Scoping and Programming and ends with approval of any necessary environmental review documents.

400.02 Process Overview

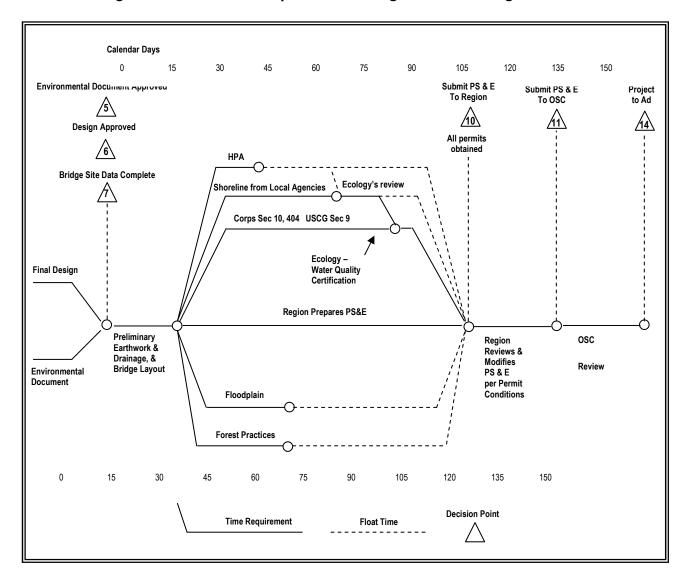
Figure 400-1 illustrates the relationship between Design and Environmental Review and preceding and succeeding phases of the decision-making process. During Design and Environmental Review, project design is completed to the level needed to conduct the required environmental analysis and compare alternatives when appropriate.

EPM Part 3 **EPM Part 4 EPM Part 5 Project Environmental** Scoping and **Design and Environmental Review Phase** Permitting and **Programming PS&E Phase Phase** Interdisciplinary Team, Develop & Select Preferred Gather Data Public Evaluate Alternative Involvement Plan, Alternatives EA/EIS Scoping Study Plan Discipline Reports Final Environmental Project Document Funded ROD/FONSI

Figure 400-1: Design and Environmental Review Phase

Most environmental analysis is done in tandem with project design, and re-design to address an environmental issue is common. An environmental document is drafted after analyzing environmental issues, comparing alternatives, developing mitigation measures, consulting with resource agencies regarding any required permits, and making a determination about the significance of any unmitigated environmental impacts. When the environmental documents are finalized, the Environmental Permitting and PS&E phase can begin. This relationship is illustrated in **Figure 400-2**.

Figure 400-2: Relationship Between Design and Permitting



The Design and Environmental Review phase is generally considered complete with approval of the environmental documents. A Finding of No Significant Impact (FONSI) for EAs, and a Record of Decision (ROD) for FEISs are the final federal approval of environmental documents. For Limited Access Highways, an "8 Point Access Report" is also required for approval of an FEIS (see WSDOT *Design Manual*, M-22-01).

400.03 Organization of Part 4

The first three chapters of **Part 4** give an overview of the NEPA/ SEPA process and environmental review that occurs during the Design and Environmental Review phase. **Table 400-1** lists approvals that are discussed in **Part 4**. **Chapter 410** gives an overview of NEPA and SEPA legislation and implementing regulations that specify the process to be followed. It also describes agency roles and responsibilities, and guidance for public involvement. **Chapter 411** gives step-by-step guidance for preparing environmental documents: categorical exclusions and/or exemptions, environmental assessments and/or checklists, environmental impact statements, and supplemental documentation if required. It also includes guidance on planning the environmental review processes.

Chapter 420 through Chapter 480 give detailed guidance for completing the environmental review to meet NEPA/SEPA requirements and obtain state and federal permits. For most chapters, WSDOT Discipline Report checklists are used as guides to what is required. The guidance refers extensively to the relevant authorizing legislation and regulations, and wherever possible points to web sites where resource materials are available online.

Chapter 490 describes how environmental commitments are documented during Design and Environmental Review. Key environmental compliance activities are:

- Agency coordination and public involvement
- Analysis of environmental impacts
- Comparison of impacts for each alternative
- Preparation of mitigation plans
- Documentation
- Preparation of a project commitments file
- Preliminary permit applications

The detailed guidance in **Chapter 420** through **Chapter 480** also serves as a reference for environmental analysis done during earlier phases of Transportation Planning (**Part 2**) and Project Scoping and Programming (**Part 3**), as well as during Environmental Permitting and PS&E (**Part 5**), Construction (**Part 6**), Maintenance and Operations (**Part 7**), and Surplus Real Property Disposal (**Part 8**).

Table 400-1: Environmental Approvals – Environmental Review Phase

Note: Abbreviations are listed at the end of this table.

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
FEDERAL PERMIT	S AND APPROVALS			
National Environmental Policy Act (NEPA)	FHWA and WSDOT	Activities with a federal nexus (i.e. upon federal lands, federally for requiring federal permits or approvals) trigger NEPA procedural adocumentation requirements.		42 USC 4321, 23 CFR 771, 40 CFR 1500-1508
Endangered Species Act (ESA)	NOAA Fisheries USFWS	Activities with a federal nexus (i.e. upon federal lands, federally for requiring federal permits or approvals) trigger ESA procedural and documentation requirements.		16 USC 1531-1543
Wetlands Report	Corps	Impact to lowlands covered with shallow and sometimes temporary/intermittent waters (e.g., swamps, marshes, bogs, slot potholes).	ughs,	49 USC 1651, EO 11990 (Protection of Wetlands)
Wild and Scenic Rivers	FHWA and Affected Agency	No specific permits are required for projects in wild and/or scenic corridors, but water quality permits listed in Section 431.06 may		16 USC 1271
Farmland Conversion	NRCS Counties and Cities	NRCS Form AD1006 approval may be required if project entails of farmlands. Local grading permits may also be required.	conversion 454	7 USC 4201, 7 CFR 650
U.S. Dept of Transportation Act - Section 4(f)	FHWA, SHPO, and Affected Agency with Jurisdiction over the site	Use of park and recreation lands, wildlife and waterfowl refuges, sites of national, state, or local significance triggers Section 4(f) p and documentation requirements.		49 USC 1651, Sec. 4 (f), 23 CFR 138
Land and Water Conservatio <u>n Fund</u> Act - Section 6(f)	FHWA and Affected Agency (WSDOT)	Use of lands purchased with <u>LWCFA</u> funds triggers Section 6(f) pand documentation requirement. In Washington <u>LWCFA</u> funds a distributed by the Interagency Committee for Outdoor Recreation	re 520.11	LWCFA
Historic Preservation Act - Section 106	OAHP/SHPO	Potential impacts to historic or archaeological properties trigger S procedural and documentation requirements.	Section 106 411.12, 456, 520.10	16 USC 470, Sec.106, 36 CFR 800, RCW 43.51.750
STATE PERMITS A	AND APPROVALS			,
State Environmental Policy Act (SEPA)	Ecology	Any activity not categorically exempt triggers SEPA procedural and documentation requirements.	nd 410-480	RCW 43.21C, WAC 197-11, WAC 468-12
Corps U.S. Ar Ecology Washin FHWA Federa LWCFA Land an NEPA National	of Federal Regulations rmy Corps of Engineers regton State Department of Ecology al Highway Administration and Water Conservation Fund Act (Federal) al Environmental Policy Act I Resources Conservation Service (U.S. Dept. of A	RCW Revised Co SEPA State Envin SHPO State Histo USC United Stat USFWS United Stat	chaeology and Historic Preservation (State) ode of Washington onmental Policy Act ric Preservation Officer es Code es Fish & Wildlife Service (Dept. of Interior) on Administration Code	

Chapter headings correspond to those in environmental assessments/checklists and environmental impact statements, as summarized in **Table 411-2**. These topics include but are not limited to:

- Earth geology and soils.
- Air Quality.
- Water Resources surface water/water quality, floodplain, groundwater.
- Plants and animals wetlands, threatened and endangered species, wildlife, fisheries, and habitat.
- Energy.
- Environmental health noise and hazardous materials.
- Land use population/land use and growth management, shorelines, wild and scenic rivers, farmlands, public lands (Section 4(f), Section 6(f), and forest lands), historic and cultural resources (Section 106), social and economic issues including relocation, environmental justice, and aesthetics and visual quality.
- Transportation vehicular traffic, parking, waterborne, rail, and air traffic.
- Public services and utilities.
- Indirect and cumulative impacts.
- Irreversible and irretrievable commitment of resources.
- Relationship of short-term uses of environment and long-term productivity.

Each chapter is organized to present the statutory and regulatory framework first, followed by policies and specific procedural requirements. Interagency agreements typically address procedural issues defining the responsibilities of each agency, and some contain substantive permitting requirements. For most chapters, the WSDOT Discipline Report provides the subject-specific documentation for preparation of EISs and other environmental documents. The permit section lists applicable permits discussed in detail in **Chapter 520** through **Chapter 550**. Any special requirements for non-road projects such as ferries, airports or rail are listed. In the absence of such information, the user should assume the requirements described in the previous subsections apply to those facilities as well.

Each chapter on an element of the environment follows the same outline:

- Introduction summary of requirements, abbreviations, acronyms and glossary
- Applicable statutes and regulations
- Policy guidance
- Interagency agreements.
- Technical guidance.
- Permits and approvals
- Non-road project requirements
- Exhibits

400.04 Abbreviations and Acronyms

In Part 4, abbreviations and acronyms applicable to NEPA/SEPA documents and procedures (Chapter 410 and Chapter 411) are listed in the introduction to

Chapter 410; those applicable to specific elements of the environment are listed in the introductions to Chapter 420 through Chapter 480. For a complete list of abbreviations and acronyms used in the EPM, see Appendix A.

400.05 Glossary

A glossary of terms used in **Part 4** are listed in the introductions to **Chapter 410** through **Chapter 480**. See **Appendix B** for a general glossary of terms used in the EPM.

400.06 Exhibits

None.

410.01	Introduction
410.02	Applicable Statutes and Regulations
410.03	[Reserved]
410.04	Relationship of NEPA and SEPA
410.05	Agency Roles and Responsibilities
410.06	Public Involvement
410.07	Exhibits

Key to Icons

Web site.*

Interagency agreement.

410.01 Introduction

Chapter 410 and Chapter 411 describe the environmental review procedures that occur during the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process. Detailed guidance is given for the major steps in the environmental review process.

Chapter 410 focuses on understanding NEPA/SEPA legislative authority, agency roles and responsibilities, and public involvement.

Chapter 411 gives detailed guidance on the documents and procedures for each classification, and internal WSDOT procedures for environmental review.

Environmental analysis is done to some degree at each stage of the decision-making process. The first formal analysis occurs during project definition, with preparation of the Environmental Review Summary (Section 310.05). The most extensive analysis occurs during project design, for the purpose of preparing environmental review documents (e.g., environmental assessments/checklists and environmental impact statements) and permit applications. Chapter 420 through Chapter 480 give specific guidance for analysis of each of the environmental elements required by federal and state laws and regulations. Permit information is contained in Part 5.

(1) Abbreviations and Acronyms

Abbreviations and acronyms used in Chapter 410 and Chapter 411 are listed below. Others are found in Appendix A.

CE Categorical Exclusion (NEPA) or Categorical Exemption (SEPA)
CEQ Council of Environmental Quality (federal)
CFR Code of Federal Regulations
DCE Documented Categorical Exclusion (NEPA)
DEIS Draft Environmental Impact Statement
DNS Determination of Non-Significance (SEPA)

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

DS Determination of Significance (SEPA)

EA Environmental Assessment

ECS Environmental Classification Summary

EIS Environmental Impact Statement

EPF Essential Public Facilities

ERS Environmental Review Summary
FEIS Final Environmental Impact Statement
FONSI Finding of No Significant Impact (NEPA)

GIS Geographic Information System

IDT Interdisciplinary Team

MDNS Mitigated Determination of Non-Significance (SEPA)

NAT Notice of Action Taken (SEPA)
NEPA National Environmental Policy Act

NOI Notice of Intent (NEPA)
ROD Record of Decision (NEPA)

SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation Equity

Act: A Legacy for Users

SEPA State Environmental Policy Act

(2) Glossary

Categorical Exclusion/Exemption – An action that does not individually or cumulatively have a significant environmental effect, as defined in NEPA/SEPA regulations, and is classified as excluded (NEPA) or exempt (SEPA) from requirements to prepare an Environmental Assessment/Checklist or Environmental Impact Statement.

Council on Environmental Quality (CEQ) – An oversight council established within the Executive Office of the President with passage of the National Environmental Policy Act of 1969. The Council has been assigned the task of ensuring that federal agencies meet their obligations under NEPA. Its role is to advise and assist the President on environmental policy development; recommend strategies and oversee implementation; report, coordinate, support, interpret, and approve procedures; and issue guidance. Regulations are codified as 40 CFR 1500-1508.

Cumulative Impact/Effect – Cumulative impacts from past actions or the incremental effect of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time. For NEPA, see 40 CFR 1508.7. (See Chapter 480 for guidance.)

Direct Impact/Effect – A direct impact (or effect) is caused by the proposed action or alternative and occurs at the same time and place, most often during construction. Impacts may be ecological, aesthetic, historic, cultural, economic, social, or health-related. For example, a highway crossing a stream may directly impact its water quality, though such impacts can be mitigated. For NEPA, see 40 CFR 1508.8. (See Chapter 480.)

Discipline Report – A WSDOT report prepared by Regional Offices or Divisions to document environmental studies and investigations. The discipline reports form the basis of the Environmental Impact Statement.

Environmental Document – Includes Environmental Assessments (NEPA), SEPA Threshold Determinations (Determination of Significance or Determination of Non-Significance) and associated Environmental SEPA Checklists, Draft and Final EISs, Section 4(f) Evaluations, Section 106 Reports, Environmental Justice Reports and other documents prepared in response to state or federal environmental requirements.

Environmental Review – Consideration of environmental factors as required by NEPA and SEPA. The "environmental review process" is the procedure used by agencies and others to give appropriate consideration to the environment in decision making.

Indirect Impact/Effect – Indirect impacts (or effects) are caused by the proposed action or alternative and are later in time or farther removed in distance, but still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems. (Note: "Indirect" is defined somewhat differently under NEPA and ESA rules.) For NEPA, see 40 CFR 1508.8. See also Chapter 480.

Mitigation – (1) Avoiding the impact altogether by not taking a certain action or parts of an action, (2) minimizing impacts by limiting the degree of the action, (3) rectifying the impact by repairing or enhancing the affected environment, (4) reducing or eliminating the impact over time, (5) compensating for the impact by replacing or substituting resources or environment, or (6) monitoring the impact and taking appropriate corrective measures. Also referred to as "mitigation sequencing". For NEPA, see 40 CFR 1508.2. For SEPA, see WAC 197-11-768.

Project Description – A narrative written by the proponent to describe the project proposal. It may include explanations of the existing physical, environmental, social, and economic setting in which the proposed project is situated, a legal description of the location, and an explanation of the intended improvements.

Responsible Official – Official of the lead agency who has been delegated responsibility for complying with NEPA/SEPA procedures. See **Section 410.05** for identification of the WSDOT responsible official.

Scoping – Formal scoping for an EIS includes identifying the range of proposed actions, alternatives, environmental elements and impacts, and mitigation measures to be analyzed in an environmental document. Public and agency scoping meetings are generally associated with this activity for NEPA scoping activities. (SEPA does not require a public hearing during the SEPA scoping for an EIS.)

Secondary Effect/Impact – Same as indirect effect under NEPA.

Significant Impact – The significance of potential impact on the natural or built environment depends upon context, setting, likelihood of occurrence, and severity, intensity, magnitude, or duration of the impact. WAC 197-11-330 specifies a process, including criteria and procedures, for determining whether a proposal is likely to have a significant adverse environmental impact.

Threshold Determination – This determination by the responsible official of the lead agency is part of the SEPA process. This decision determines if an EIS is required; if so a Determination of Significance is issued. If project impacts are not significant (i.e. requiring an EIS), a Determination of Non-Significance is issued with an environmental checklist. A Mitigated Determination of Non-Significance results in an expanded environmental checklist with increased emphasis on the mitigation of project impacts.

410.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to environmental review. See **Appendix D** for a list of statutes referenced in the EPM.

(1) National Environmental Policy Act (NEPA)

The National Environmental Policy Act (NEPA) was signed by President Nixon in January 1970 as the "national charter for protection of the environment" (PL 91-190). It was enacted to ensure that information on the environmental impacts of any federal action is available to public officials and citizens before decisions are made and before actions are taken.

The intention of NEPA was stated as follows in the Council on Environmental Quality NEPA Regulations (40 CFR 1500-1508): "Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. These regulations provide the direction to achieve this purpose." (40 CFR 1500.1(c)).

Under NEPA, the Congress directs federal agencies to integrate in their planning and decision-making consideration of the natural and social sciences, environmental amenities and values, and design arts along with economic and technical concerns. NEPA is a broad-reaching mandate for federal agencies to work together with state, local, and tribal governments, public and private organizations, and the public, to achieve and balance national social, economic, and environmental goals while accomplishing their missions.

Federal agencies are required to integrate the NEPA process with other planning at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts.

NEPA implementing regulations applicable to all federally aided projects were developed by the Council on Environmental Quality (CEQ) and are codified as 40 CFR 1500 – 1508, Regulations for Implementing the Procedural Provisions of NEPA. FHWA regulations applicable to federally aided highway projects are codified as 23 CFR 771, Environmental Impact and Related Procedures.

The full text of NEPA (42 USC 4321 et seq.), CEQ implementing regulations (40 CFR 1500-1508), and other guidance is online at:

1

http://www.whitehouse.gov/ceg/

Click on NEPAnet.

Or by direct link:



http://ceq.eh.doe.gov/nepa/nepanet.htm

The American Association of State Transportation Officials maintains a Center for Environmental excellence that provides a very useful one-stop source of environmental information for transportation professionals. The direct link is:



http://environment.transportation.org/indexnew.asp

FHWA environmental impact and related regulations (23 CFR 771) are at:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then Title 23 CFR, then 771.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0771.htm

For FHWA policy and other guidance on Transportation Project Development and NEPA:



http://environment.fhwa.dot.gov/

Click on Project Development, then NEPA Implementation.

Or by direct link:



http://environment.fhwa.dot.gov/projdev/PDimplement.htm

(2) <u>Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users</u> (SAFETEA-LU)

SAFETEA LU is the 2005 national transportation bill that affects many aspects of the NEPA environmental review and documentation process for transportation projects. Section 6002 of the bill includes provisions that establish:

- A new coordination and public input process for developing NEPA EISs.
- A new category of "Participating Agencies".
- A 180-day appeal period for NEPA and other federal project-related actions.

The new environmental review process applies to highway, public transportation capital, and multimodal projects. It is mandatory for all EISs that published a Notice of Intent (NOI) after Augsust 11, 2005 and optional for EAs, at the discretion of the Secretary. Currently, it is anticipated that it will only be applied to EIS projects in Washington State.

The process also includes new obligations for a public comment process for project Purpose and Need and for project Alternatives, and it requires the development of a coordination plan and schedule that must be provided to all

"Participating Agencies" and made available to the public. The lead agency must invite all interested agencies to be "Participating Agencies" in NEPA document preparation. Unless an agency specifically declines it will be a Participating Agency. Invited federal agencies may decline if they have no jurisdiction, expertise or intent to comment. Participating agencies may also be a "Cooperating Agency".

Section 6002 of SAFETEA LU also adds a procedure for establishing a 180day statute of limitations on legal challenges under NEPA and challenges to other project-related federal actions such as the issuance of permits. The 180day appeals clock starts with publication of a notice in the Federal Register that a permit, license, or approval action is final. This provision is effective immediately and may be exercised retroactively whether or not the new environmental review process under Section 6002 was followed.

This information regarding SAFETEA-LU is intended primarily to inform projects that these new federal environmental review processes exist. It does not cover all environmental aspects of the highway bill. Additional guidance regarding the new environmental review processes will be developed in early 2006, and will be made available at:



http://www.wsdot.wa.gov/environment/compliance/default.htm

In the interim, projects are encouraged to contact the Environmental Services Office for additional information, as necessary. Please contact Phil KauzLoric at (360) 705-7486 or via e-mail at KauzLop@wsdot.wa.gov. The FHWA SAFETEA-LU web site has additional information and may be accessed at:



http://www.fhwa.dot.gov/safetealu/

State Environmental Policy Act (SEPA) <u>(3)</u>

Overview <u>(a)</u>

Washington's State Environmental Policy Act (SEPA), adopted in 1971, directs state and local decision-makers to consider the environmental consequences of their actions. Implementing regulations, in the form of the SEPA Rules (WAC 197-11) establish uniform requirements for agencies to use in evaluating the possible adverse environmental impacts of a proposal. The process also allows review of possible project alternatives or mitigation measures that will reduce the environmental impact of a project. The SEPA Handbook gives specific guidance on the steps required for the SEPA environmental review process.

For WSDOT projects, the Transportation Commission and Department Environmental Policy Act Rules (WAC 468-12) integrate the policies and procedures of SEPA into the programs, activities, and actions of the department.

The SEPA (RCW 43.21C), SEPA Rules (WAC 197-11), SEPA Handbook, and forms, including the Environmental Checklist, are on Ecology's web site:



http://www.ecy.wa.gov/

Click on Services, then SEPA / Environmental Review.

Or by direct link:



http://www.ecy.wa.gov/programs/sea/sepa/e-review.html

The WSDOT SEPA procedures (WAC 468-12 as amended) are located at the Statute Law Committee web site:



http://slc.leg.wa.gov/

Click on WAC, then Title 468, then 468-12.

Or by direct link:



ttp://search.leg.wa.gov/wslwac/WAC 468 TITLE/WAC 468 - 12 CHAPTER/WAC 468 - 12 Chapter.htm

(b) SEPA Appeals

SEPA Rules (WAC 197-11-680) allow three types of appeals:

- Administrative procedural appeals.
- Administrative substantive appeals (if both substantive and procedural appeals are allowed, they must be consolidated).
- Judicial appeals.

Anyone wishing to appeal a project must contact the lead agency and obtain information on that agency's appeal process. A Notice of Action Taken document submitted by the lead agency will begin the 21-day appeal period. (See Section 411.07(8) and Section 411.08(8).)

Agencies may provide an administrative review process for SEPA determinations prior to issuing a permit or approval. This review is limited to final threshold determinations or final EISs. (Final threshold determination means a determination of significance or a determination of nonsignificance after the close of the comment period.)

If a decision on a proposed action has been made, one appeal is allowed, including both the SEPA determination and the substantive decision (WAC 197-11-680(3)).

The time frame for administrative appeals at the local level must be specified in the agency's SEPA procedures. If there is an appeal period for the action being taken (e.g., building permit or rezone), then the timing of the SEPA administrative appeal is the same as for appeal of the action.

If an agency has an administrative appeal process, it must be used prior to initiating judicial appeal. The judicial appeal combines appeal of the governmental action (permit/approval) and the SEPA document.

(c) Appellate Court Decisions on SEPA

The SEPA Handbook contains general information, discussions, and examples of the major steps of SEPA, including a summary of important appellate court decisions on SEPA. These decisions form the basis for interpretations of the SEPA Rules and the statutes. These decisions may be useful in resolving questions of law when the circumstances of a project are unusual.

410.03 [Reserved]

410.04 Relationship of NEPA and SEPA

(1) Projects Covered by NEPA and SEPA

NEPA applies to decisions made with a federal nexus, meaning any involvement by federal agencies: federal permits, federal lands, or federal funding. Any federal project, or a private or state project funded by or requiring a permit from a federal agency, must meet NEPA requirements.

SEPA is intended to ensure that environmental values are considered during decision-making by state and local agencies. The policies and goals of SEPA apply to all branches of government in Washington, including state agencies, counties, cities, districts, and public corporations. Any government action may be conditioned or denied pursuant to SEPA.

Most WSDOT projects must comply with both NEPA and SEPA. For example, because a highway project involving a bridge over a major river requires a permit from the U.S. Army Corps of Engineers, it would have to meet NEPA requirements. As an action of a state agency, the project would have to meet SEPA requirements.

(2) Environmental Review Process

Figure 410-1 is a generalized flow chart illustrating the environmental review process, participants, and documentation. **Exhibit 411-1** gives more detail for NEPA Class I, II, and III projects. Critical path timelines for preliminary engineering of hypothetical Class I, II, and III projects are online via the ESO web site.

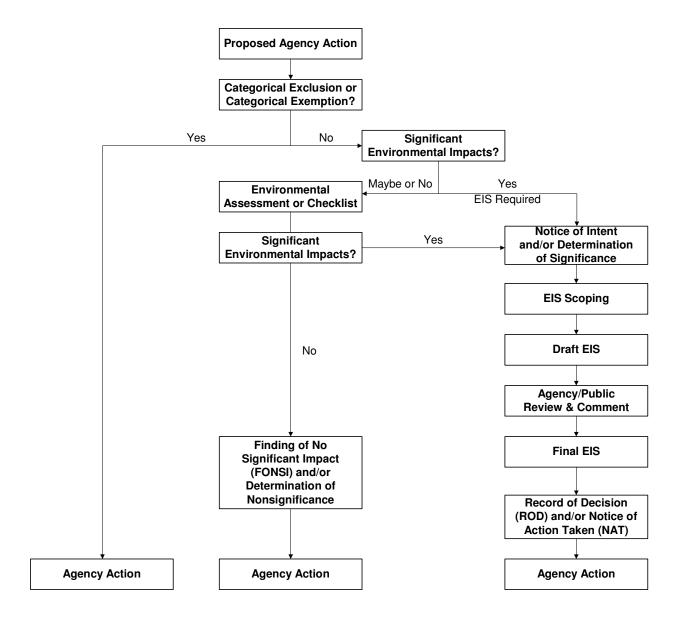
Four basic questions are common to both NEPA and SEPA.

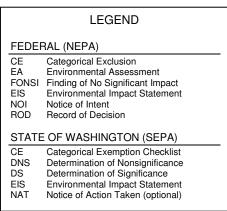
- First, is the proposed action subject to either or both statutes?
- Second, will the project result in a probable significant adverse
 environmental impact, and is there an option of modifying the proposal or
 identifying mitigation that would allow the issuance of a Mitigated DNS? If
 the Responsible Official determines that the project will have such impacts,
 the agency proposing the action must prepare an EIS.
- Third, what elements of the environment are adversely affected by the
 project or other action and must be included in the EIS? The answer to this
 question determines the scope of the EIS.
- Fourth, what are the relative environmental impacts of the proposed action and alternatives? The comparative analysis of alternatives is the heart of the EIS.

While the above discussion encapsulates the substance of the NEPA/SEPA process, the actual steps are complex and require attention to the details. Deciding upon the proper level of environmental documentation and preparing adequate documents are critical. Both NEPA and SEPA grant discretion to the Responsible Official to decide how detailed the studies should be and what issues to cover. These steps are described in more detail in **Section 411.04** through **Section 411.09**.

After the NEPA/SEPA documentation has been reviewed and approved, the final step of implementation begins. Environmental conditions that may be imposed as mitigation through the NEPA or SEPA environmental review process and detailed mitigation further developed and refined during permitting both require implementation and monitoring during project construction and maintenance. These steps are discussed in more detail in **Part 6** and **Part 7**.

Figure 410-1: NEPA and SEPA Environmental Review Process Overview





Adapted from: Background and Implementation of NEPA:Training Manual, Chapter 1, Planning, Environmental, and Land Use Publications, Point Arena. CA. www.solano.com.

(3) Adoption of NEPA Documents Under SEPA Rules

The SEPA Rules allow an agency to adopt environmental analysis prepared under NEPA to satisfy SEPA requirements (WAC 197-11-610). In general, a NEPA EA may be adopted to satisfy requirements for a SEPA Determination of Nonsignificance (DNS) and a NEPA EIS may be adopted as a substitute for a SEPA EIS. Federal documents may also be incorporated by reference as support for issuance of a SEPA document (WAC 197-11-635).

(4) Combined NEPA/SEPA EISs

When a decision is made by WSDOT and FHWA to prepare a NEPA EIS, WSDOT usually prepares a joint NEPA/SEPA EIS. This has two advantages:

- The interests of SEPA agencies are raised in the proposed project because the document also pertains to their review authority under SEPA.
- Issues that may surface later under SEPA are identified earlier in the joint environmental process.

In the case of a conflict between the NEPA and SEPA regulations, the more stringent of the two is employed by WSDOT. There are cases where SEPA regulations have to be incorporated into the process on a parallel path, for example the Determination of Significance (DS). For details see Section 411.07.

410.05 Agency Roles and Responsibilities

(1) Responsibilities

Depending on the project, a federal or state agency, tribe, or local government may serve in any of the roles described below.

(a) Lead Agency

The Lead Agency is responsible for ensuring that NEPA/SEPA requirements are met. For state transportation projects, WSDOT is the lead agency for SEPA (WAC 197-11-926) and FHWA is the lead agency for NEPA (23 CFR 771.109). Although FHWA is the NEPA lead agency for federal highway projects, NEPA allows the EIS document to be prepared by the state transportation agency so long as FHWA provides guidance and independently evaluates the EIS (42 USC 4332(2)(D)). FHWA and WSDOT also may decide to be joint lead agencies for NEPA. For local projects, a city or county is usually the lead agency for SEPA (WAC 197-11-926).

For Washington State Ferries (WSF) projects without FHWA funding, responsibility for ensuring compliance with NEPA is assumed by the U.S. Army Corps of Engineers.

Other federal agencies may also assume Lead Agency status in certain situations where they have project funding or permitting responsibilities.

The lead agency appoints a Responsible Official to formally approve NEPA and SEPA environmental documents.

(b) Applicant

Under the NEPA Rules, WSDOT is an applicant as the agency that initiates a project to FHWA, which has approval authority. The applicant

may do the actual work of preparing environmental documentation, which must be approved by the lead agency before release to the public.

(c) Cooperating Agency

Under NEPA, a cooperating agency has a vested interest in a proposed project for which the environmental document will be prepared. The agency might own needed property, issue required permits, or have special expertise in an affected element of the environment. The level of involvement varies with the project. Cooperating agencies participate in "scoping" a project during preliminary planning to identify potential environmental impacts, alternatives and mitigating measures, and required permits. They review and comment formally and/or informally on environmental assessments and environmental impact statements. They may also prepare special studies or share in the cost of the environmental documentation. Cooperating agencies may include federal and state resource agencies, local governments, tribal governments, and special districts. For regulatory guidance, see CEQ 40 CFR 1501.6, FHWA 23 CFR 771.109 and 771.111, WAC 197-11-408(2)(d), and WAC197-11-410(1)(d), WAC 197-11-724 and WAC 197-11-920.

(2) Who Should be a Cooperating Agency?

Under NEPA regulations, any federal agency with permitting authority must be asked to become a cooperating agency (23 CFR 771.109).

State resource agencies, tribes, and local agencies may be asked to be cooperating agencies if the lead agency decides they have special expertise or legal jurisdiction.

An agency with permitting authority can stop a project if it does not agree that environmental impacts have been adequately addressed. An actively participating cooperating agency can identify environmental factors it considers most critical, and work with FHWA and WSDOT to ensure that the NEPA document addresses these concerns. The agency can then adopt the FHWA/WSDOT EIS to satisfy the NEPA requirements for its particular jurisdictional responsibility.

Table 410-1 lists examples of agencies with jurisdiction or expertise that may be asked to be cooperating agencies.

(a) When to Request Participation

WSDOT should request the participation of each cooperating agency as early as possible, typically before the beginning of formal scoping.

According to CEQ regulations, federal agencies with jurisdiction must accept cooperating agency status. FHWA can accept an agency's declining to be a cooperating agency if the agency's written response to the request states that its NEPA regulations do not require a separate EIS in conjunction with the proposed FHWA action.

If a federal agency that has legal jurisdiction refuses to be a cooperating agency, notify the FHWA regional and WSDOT Environmental Services Office.

Table 410-1: Potential Cooperating Agencies

Agency	Jurisdiction
U.S. Army Corps of Engineers	Section 10 and Section 404 Permits.
U.S. Coast Guard	Bridge Permits.
Environmental Protection Agency (USEPA)	Sole Source Aquifers, Hazardous Waste Site.
National Park Service	Properties funded under Land and Water Conservation Fund Act 6(f).
U.S. Fish & Wildlife Service (USFWS)	Areas funded under various fish and wildlife related grant programs or projects affecting endangered species.
Federal Transit Administration (FTA)	Transit and rail funding.
Rural Electrification Administration (REA)	Relocation of utilities constructed or assisted with REA loans.
Federal Agency Land Manager: National Park Service USFWS Bureau of Land Management U.S. Forest Service Department of Defense General Services Administration U.S. Fish & Wildlife Service NOAA Fisheries Washington Dept. of Natural Resources	Land transfer from: National Park System National Wildlife Refuge Public Lands National Forest System Military Facilities Federal Buildings Fish and wildlife natural habitat, wetlands, stream relocations, estuaries.
Washington Dept. of Ecology Washington Dept. of Fish and Wildlife	
Office of Archaeology & Historic Preservation	Historic, cultural, and archaeological sites.
Environmental Protection Agency	Water supply, air quality.
Federal Emergency Management Agency	Regulatory floodway.
Tribal Governments	Agency with expertise or jurisdiction.
Washington State Agencies	Agency with expertise or jurisdiction.
City/County Governments	Shorelines, Floodplains, Critical Area Ordinances, Growth Management Act issues.

(b) How to Request Participation

FHWA sends a written request to federal agencies, asking them to become a cooperating agency. WSDOT invites state, regional and local agencies. The agency responds in writing, either accepting or declining the opportunity. Both letters should be retained in the project file; copies should be sent to the Environmental Services Office.

The Signatory Agency Committee agreement describes procedures applicable to all WSDOT projects requiring a Corps of Engineers individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS. See Section 411.06(4) for details.

(c) Levels of Involvement

The level of involvement by the cooperating agency varies. For some projects, it is merely a review function. In others, the cooperating agency may perform some of the specialty studies or help prepare documents. Normally, the lead agency pays for studies carried out by the cooperating agency.

FHWA, WSDOT, and the cooperating agencies should define and agree on roles and expectations at the beginning of the project, for example specific schedules for coordinating the review of preliminary documents.

FHWA and WSDOT should make every reasonable effort to assist agencies in meeting deadlines. Nevertheless, cooperating agencies should be made aware that failure to reasonably adhere to project schedules could result in their agency concerns and comments not being incorporated in the documents.

(d) When WSDOT Could Become a Cooperating Agency

Other agencies may ask WSDOT to become a cooperating agency. This could occur on projects when a landholding agency, such as the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, or a tribal government, proposes a project that could impact WSDOT facilities. County and municipal transportation projects could also involve WSDOT as a cooperating agency.

(3) FHWA and Other Federal Oversight Agencies

FHWA is the lead agency under NEPA as the federal agency responsible for funding and approving most highway projects. FHWA directly funds most WSDOT projects and funds many local government projects through WSDOT.

Federal lead agencies for other transportation modes are:

Ferries – Corps of Engineers (Corps)

Mass transit – Federal Transit Administration (FTA)

Aviation – Federal Aviation Administration (FAA)

Navigable waters – United States Coast Guard (USCG)

Rail – Federal Railroad Administration (FRA)

These agencies may have different regulations to implement NEPA, so advance coordination (early and often) is imperative when developing environmental documents with co-lead federal agencies. For example, the FTA does not recognize programmatic 4(f) statements unless it adopts the FHWA policy on this issue on an individual project basis.

(4) Tribal Participation

Tribes can be involved in three capacities under NEPA: as cooperating agencies (with expertise and/or jurisdiction), as consulting party and/or as affected community. The project team must determine which tribes it will need to consult with for natural resources and cultural resources. In some cases, you may not consult with a tribe on both resource issues.

- For natural resource consultation, project teams should review the
 "Usual and Accustomed" (U&A) Maps available through the
 Environmental Services Tribal Liaison. These maps display areas
 where a tribe has court affirmed treaty reserved rights. In some cases,
 it may be appropriate to seek guidance from the Attorney General's
 Office on the exact boundaries of U&A areas.
- For cultural resources consultation, project teams should review the "Area of Interest" maps available through the WSDOT Environmental Services Tribal Liaison. Identifying tribes for cultural resources

consultation is governed by the Section 106 regulations of the Natural Resources Preservation Act.

Project consultation with Indian Tribes is called for in the WSDOT 2003 *Centennial Accord Plan* developed to implement the WSDOT February 19, 2003 Executive Order E1025.00. It is expected that projects will follow the WSDOT *Centennial Accord Plan* when developing and distributing environmental documents for formal external review.

The following link may be used to access the WSDOT Centennial Accord Plan.

http://www.wsdot.wa.gov/tribal/centennial accord.htm

(5) WSDOT Roles and Responsibilities

(a) Environmental Services Office (ESO)

The ESO supports the Regional Offices and Modes and develops policies and programs and initiatives.

The Director of Environmental Services is the Responsible Official for all NEPA EISs and EAs and all SEPA EISs. For all other NEPA and SEPA documents, the Responsible Official is the Regional Environmental Manager. This applies to all projects where WSDOT is the lead agency, including ferry and rail projects.

(Note: As of March 2005 the 1986 WSDOT SEPA WAC (Chapter 468-12 WAC) is in the process of being updated. The information presented here regarding designation of the WSDOT Responsible official will be updated upon formal adoption by WSDOT of revisions to the 1986 WSDOT SEPA WAC.)

ESO Compliance Branch staff reviews NEPA EISs and EAs, SEPA EISs, and Section 4(f) environmental documents prepared by Regional Offices and Modes before they are submitted for approval by the Director of Environmental Services and the FHWA or other federal oversight agency. ESO staff also review environmental documents prepared by local governments when WSDOT is the co-lead agency, following review by the WSDOT Highways and Local Programs Office.

The ESO Compliance Branch staff must be contacted at least 45 days before the meeting with the Director of Environmental Services to obtain formal signature approval. Please refer to **Exhibit 411-2** for the standard briefing agenda to be followed when requesting approval from the Director of Environmental Services.

(b) Highways and Local Programs Office

The Highways and Local Programs Office oversees the pass-through of federal funds from FHWA and other federal sources to cities and counties. Prior to ESO review, the office reviews NEPA environmental documents submitted by local governments for approval by FHWA. WSDOT's *Local Agency Guidelines* (M 36-63) provides more details on NEPA and SEPA procedures for WSDOT and local governments.

(c) WSDOT Regional Offices

WSDOT Regional Environmental Managers act as the Responsible Official for approving SEPA Determinations of Non-Significance (including Mitigated DNSs), NEPA Categorical Exclusions (CEs), and Documented CEs (DCEs).

(d) WSDOT Modes

For aviation, ferry, and rail projects, the director of the sponsoring WSDOT Mode acts as the Responsible Official for approving SEPA DNSs (including Mitigated DNSs) and NEPA CEs and DCEs.

(6) Ecology

The Implementing Agreement between WSDOT and Ecology Concerning Adoption of NEPA Documented Categorical Exclusions, approved June 20, 1996, states: "Ecology concurs that the adoption of a NEPA documented categorical exclusion (DCE) under the Federal Highway Administration's NEPA implementing regulation, 23 CFR 771.117 is allowable under the SEPA Rules in lieu of completing a SEPA checklist, provided the requirements of WAC 197-11-600 and 197-11-630 are met. Ecology will prepare a notice for the SEPA Register notifying other agencies and the public of Ecology's interpretation that an adoption of a NEPA documented categorical exclusion is allowable under SEPA Rules. Ecology will review and may provide comments, if appropriate, during the 15-day public/agency comment period for each proposed project for which adoption of a DCE is planned to comply with SEPA." This agreement is online at:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

(7) Local Governments

For local government transportation projects receiving federal aid, cities, counties, and special districts such as a sewer, water, school and port districts are in the role of "proponent." WSDOT serves as the co-lead agency with FHWA for NEPA purposes, through its Highways and Local Programs office. Local projects involving federal permits, federal lands, or federal funding are also categorized Class I, II, or III. Whether or not federal funds are involved, the local government is generally the lead agency for SEPA purposes. For detailed procedures, see the *Local Agency Guidelines* manual (M 36-63).

WSDOT generally is SEPA lead agency for its own projects. In practice, this means that in evaluating permits, the local government entity cannot require an environmental review process in addition to the one WSDOT decides to undertake, but it can require supplemental SEPA review if the agency's comments on a DEIS were not addressed (WAC 197-11-600(3)). For example, a local government should not issue its own SEPA threshold determinations unless it is assuming lead agency responsibility as provided in WAC 197-11-948.

If a local entity has permit authority, it may add conditions to a project using its own authority. A local agency also has SEPA supplemental authority and can condition or deny a license to mitigate impacts identified in a SEPA document (WAC 197-11-660). However, a local government or other agency cannot impose conditions disproportionate or unrelated to the impact. The basis for the condition comes from amendments to the Growth Management Act (GMA),

specifically, the Essential Public Facilities (EPF) sections, which allow a local authority to condition, but not prevent, a subregional or regional project. The EPF process and adoption must be articulated in an enacted policy or ordinance. The condition must be reasonable and capable of being accomplished under SEPA itself and reasonably proportionate to the identified impact. Most local governments combine their adopted EPF process with SEPA. See Section 451.02 for more on the GMA and EPF.

(8) Procedures and Requirements for Establishing NEPA EIS and EA Negotiated Timeframes

A February 23, 2005 letter from the FHWA to WSDOT documents agreement between WSDOT staff and the FHWA Washington Division Office on WSDOT's plan of action to improve the process for developing NEPA schedules and meet the FHWA Headquarters requirement that all Environmental Assessments (EAs) and Environmental Impact Statements (EISs) establish a negotiated timeframe in consultation with the project stakeholders. (e.g., resource agencies, local agencies, Tribes).

WSDOT's Environmental Services Office (ESO) and Highways & Local Programs (H&LP) will ensure that the following steps are taken on all EAs and EISs that have been started since October 1, 2003.

- 1. The project agency scoping meeting invitation or scoping notice sent to all identified project stakeholders will include a project schedule consisting of at least the following milestones:
 - a. For EAs:
 - Discipline Reports Circulated (if applicable)
 - Preliminary Environmental Assessment
 - Environmental Assessment
 - Finding of No Significant Impact (FONSI)
 - b. For EISs:
 - Discipline Reports Circulated
 - Preliminary Draft EIS
 - Draft EIS
 - Preliminary Final EIS
 - Final EIS
 - Record of Decision (ROD)

Other schedule information may be included if available, such as anticipated review times for various reviewers, SAC Concurrence Points, or any other important milestones.

- 2. The scoping notice will include a request for feedback from the agencies about the schedule. It should say something like, "If you have any comments, concerns, or suggestions about this project schedule please contact the Project Manager."
 - The scoping notice may also include language that requests a response from the agencies as to whether or not they are interested in reviewing discipline reports and/or preliminary documents.
- 3. If an agency scoping meeting is held, include an agenda item to discuss the schedule and seek input from the stakeholders.

- 4. If comments about the project schedule are received, the Project Manager or H&LP Environmental Manager, as applicable, will discuss them with the commenting stakeholder and determine, in consultation with FHWA, whether changes to the schedule are warranted.
- 5. Once the scoping period is over and any comments from stakeholders or FHWA have been resolved, the Project Manager or H&LP Environmental Manager, as applicable, will notify the WSDOT Environmental Documentation Program (Attn: Phil KauzLoric), who will in turn notify the FHWA Environmental Program Manager of the length of the negotiated timeframe, in months. This information will be tracked in the FHWA Environmental Documents Tracking System.

As projects are completed, FHWA's Washington Division Office will begin reporting to FHWA HQ the percentage of our WSDOT projects that are completed within their negotiated timeframe. FHWA has established a national goal of 90% of projects meeting the negotiated timeframes by 2007.

In addition to these project-by-project efforts, FHWA is supportive of WSDOT's efforts to develop and maintain a statewide NEPA project management workload and tracking system. As demonstrated by use of we have seen in the WSDOT ESA Tracking Sheets, these systems can be very effective in tools to improving resource agency coordination and project delivery.

Any future modification of this procedure will be coordinated between FHWA Washington Division and WSDOT.

Any questions of the FHWA should be directed to Sharon Love at 360-753-9558 or Sharon.love@fhwa.dot.gov.

(9) Partner Confirmation Meeting

This meeting occurs early in the project environmental process for both EA and EIS documents. It provides a road map for the environmental process. Advance consultation with the lead federal agency or agencies provides direction on which agencies might be invited as attendees to assist in setting direction for the project environmental documentation.

- Identify lead and co-lead agencies.
- Identify cooperating agencies.
- Confirm the level of environmental documentation noted in the WSDOT Environmental Classification/Review Summary (ECS/ERS).
- Show graphically the approximate study area that is under consideration.
- Determine the applicability of the Section 106 tribal consultation process or if the Section 106 FHWA Programmatic Agreement (PA) makes the proposal exempt. If not exempt under the PA, present for discussion a suggested list of tribes and a map of tribal "Usual and Accustomed Areas."
- Present an early version of the project purpose and need (from ERS) for review and comment.
- For transportation, air, and noise studies, establish the "existing year," "year of opening," and "design year" (sometimes referred to as horizon year).
- Present a preliminary project schedule based on the proposed level of environmental documentation.

• Establish Negotiated Timeframes for completing the EA or EIS. See Section 410.05(8) for information on establishing these timeframes.

410.06 Public Involvement

Public involvement is a NEPA and SEPA requirement for all EISs and to a lesser degree EAs and SEPA DNSs. It is an important part of project development, ensuring that public input is considered in the decision process. For regulatory guidance, see 23 CFR 771.111 and WAC 197-11 Part 5.

Public notice procedures are an important part of the NEPA/SEPA process. Often the only way the public, interested organizations, and agencies find out about a project is through the public notice. Lack of public notice can be justification for appealing the procedural aspects of SEPA. If public notice is required for a government action such as a permit or license, the NEPA/SEPA notice and permit notice should be combined if possible

This section describes the key points at which public involvement is required or recommended for each project class (CE, EA, or EIS). For details on public notice requirements for CEs, EAs, EISs and Section 4(f) Evaluations, see Section 411.04 through Section 411.09 and Section 411.12.

FHWA guidance is online at:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Public Involvement.

Or by direct link:



http://www.fhwa.dot.gov/environment/pubinv2.htm

Public Involvement in Transportation Decision-Making (September 1996), prepared for FTA and FHWA, Publication No. FHWA-PD-96-031, is online at:



http://www.fhwa.dot.gov/reports/pittd/cover.htm

For other references in FHWA's Environmental Guidebook, see:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Public Involvement.

Or by direct link:



http://www.fhwa.dot.gov/environment/guidebook/chapters/v2ch13.htm

(1) Timing of Public Involvement

(a) Class II (CEs)

There are no public notice requirements for CEs. However, most projects classified as categorically excluded under NEPA will need to be examined to determine if they are also exempt under SEPA. If not exempt under SEPA, the project often requires the distribution of a threshold determination (DS or DNS) and Environmental Checklist, associated public comment period, and public notice published in an area newspaper. (See Section 411.04 for details.) A typical impact associated with a

routine excluded and/or exempt project could include a short-term delay or nuisance during construction. The main goal is to inform the public when the work will occur and how to avoid problems.

News releases and other public contact should begin shortly before construction. These communications should continue as needed during the construction period.

(b) Class III (EAs)

Non-routine projects have a potential for environmental impacts and/or controversy. These projects typically require some type of environmental analysis. Negative impacts can usually be mitigated reasonably easily.

Non-routine projects can often be classified as a documented NEPA-CE, NEPA-EA and mitigated SEPA-DNS. Examples include new truck-climbing lanes, turning lanes, or intersections.

Early public involvement allows interested agencies, the public, and WSDOT to resolve problems with a minimum of conflict. Mutual feedback fosters cooperation. Public concerns are addressed and WSDOT builds its project on schedule.

If public concerns are ignored, environmental documentation requirements usually increase. This can cause unnecessary hard feelings, project delays, and cost overruns.

See Section 411.05 for details on public notice requirements for EAs (NEPA) and DNSs (SEPA).

(c) Class I Projects (EISs)

For projects requiring an EIS, a public involvement plan should be prepared as part of the scoping process as soon as possible after a design concept is developed (see Section 410.06(3)).

Depending on the project complexity, public involvement should continue throughout project development. The public and agencies should be given feedback regarding WSDOT's response to their suggestions. For projects requiring an EIS, minimum public involvement should occur as follows:

- 1. When a scoping meeting or open house is held.
- 2. Before DEIS studies begin.
- 3. Before the DEIS if formalized.
- 4. Notice of Availability of Draft EIS and Notice of Hearing.
- 5. After the review of comments on the DEIS and preparation of draft responses and project revisions.
- 6. If any major project change is proposed.
- 7. Notice of Availability of Final EIS.
- 8. Notification of the Record of Decision (ROD) or any change to the ROD.

(2) Benefits of Effective Public Involvement

Both NEPA and SEPA cite agency and public involvement as essential parts of the development process for proposed actions. The *SEPA Handbook* notes that "…public involvement has been found to be the key to preventing public suspicion of the process." Effective public involvement can minimize opposition to a project. If the first public contact does not occur until all the design details are formalized, significant opposition may appear at the public hearing. This approach can result in costly project modification and delays and even cancellation of a project.

Public involvement is best viewed as an opportunity. Proper communication of the need for a project can often turn public apathy or opposition into support. Sometimes suggestions submitted by the public stimulate innovative problem solving. Public involvement can result in a better project when comments are viewed with an open mind. Commentors often offer local knowledge that would otherwise not be considered.

The public involvement process outlined below focuses on the specific requirements of various environmental laws and regulations in conjunction with WSDOT's policies. For more general information and ideas about public involvement methods and strategies, see WSDOT's *Design Manual* (M 22-01), Section 210.

FHWA provides online guidance on Public Involvement in Transportation Decision-Making (September 1996), prepared for FTA and FHWA, Publication No. FHWA-PD-96-031, online at:



(3) Public Involvement Plan

The Public Involvement Plan is the basic element of the public involvement process. The plan must identify all proposed public involvement methods. For ideas, see WSDOT's in the *Design Manual*, Section 210. A sample Public Involvement Plan is attached as **Exhibit 410-1**.

Regional Offices and Divisions develop the public involvement plan for WSDOT projects. For projects requiring an EIS, a public involvement plan is required as part of the study plan. (For all other projects, the Region may consult the Access and Hearings Unit for assistance or concurrence.)

The plan should include the following major elements:

- Need for public education and the best way(s) to accomplish this.
- Special issues and areas of concern.
- Legal requirements and constraints.
- Project stakeholders and general input to be requested.
- List of proposed involvement activities.
- Special approaches to solicit input of those traditionally under-served by or suffering disproportionate adverse effects of transportation projects (ADA, Environmental Justice, Title VI populations, elderly, and people with limited proficiency in English); see Chapter 457 and Chapter 458.

- Methods to be used in considering comments in the decision-making process, including follow-up procedures.
- Major project decision milestones and schedule for each task, keyed to the environmental process schedule, if applicable.
- Program for monitoring, evaluating, and restructuring the plan when necessary.
- Personnel, time, and funds needed to carry out the plan.
- Process for documentation

The two approaches typically used to solicit input from agencies and local citizens during the design and environmental process are:

- Exchange of information to and from the general public, businesses, citizen groups, public agencies, public officials, and tribes.
- Community meetings, open houses, and EIS (EA)/design hearings.

The public to be involved can include any or all of the following who could be directly or indirectly affected by the project:

- Staff and elected officials of local governments.
- Other state and federal agencies and officials.
- Tribal government representatives.
- Adjacent property owners and tenants.
- Adjacent billboard owners and clients.
- Community groups (clubs, civic groups, churches).
- Special interest groups.
- Environmental justice stakeholders (low-income and minority groups).
- Service providers (emergency, utility).
- Others expressing interest.
- Others known to be affected.
- General public.

WSDOT recognizes the role of local, state, and federal staff and elected officials as active sponsors of proposed projects who may effectively assist in developing and implementing the public involvement plan. Early and continued contact with these resources is a key to the success of the project.

(4) Circulation of Documents

NEPA and SEPA processes require public notification and circulation of documents as a method for consulting with other agencies, tribes, and the public to ensure that all potential impacts of a proposed project are identified, and that everyone understands the proposal and has a chance to express concerns. See **Section 411.05(2)** and **Section 411.07(6)** for details on distribution of EAs and EISs.

410.07 Exhibits

Exhibit 410-1 – Sample Public Involvement Plan.

Sample Public Involvement Plan

Public Involvement Plan

The public involvement plan for the SR 10, Johnson Creek Bridge to Glacier Road, project will use three basic approaches to include agencies and local citizens in the design process:

- 1) dissemination of information to the general public, businesses, citizen groups, and to public agencies and officials;
- 2) several community meetings and workshops; and
- 3) a formal design/environmental hearing.

Informational Program

The basic purpose of the informational element of the public involvement plan is to publicize the planning and decision-making process, to inform the public of upcoming public meetings and workshops, to present major issues and events, to report on input from past public meetings, to inform the public of the purpose of the study, and to publicize the process used to evaluate project alternatives. The Informational Program will take four primary forms:

- Newsletters will be distributed to those people who have expressed interest in being advised of the project's progress. A mailing list will be maintained with addresses of all potentially affected residents, businesses, public officials, and all agencies with a potential interest in the project.
- Flyers will be distributed to businesses and displayed publicly within the project corridor.
- News releases will be distributed to newspapers, community groups, and public agencies.
- Agencies and questionnaires will be distributed during public meetings.

The flyers and newspaper notices will give basic information; such as meeting dates, times, and places. The major portion of the data to be publicized will occur in the newsletters, handouts, and press releases. Theses will contain information explaining the purpose of the project, the public input process, major issues, proposed alternatives, alternative evaluation criteria, and project schedules.

Another phase of the information process will be incorporated in community meetings being held during the design process. Informational packages combining questionnaires, meeting format information, and handouts will be distributed to citizens attending public meetings.

Community Meetings

Community meetings, the second element of the public involvement program, will be held to inform the public during the design process and, equally important, to obtain public views, opinions, and attitudes regarding the proposed project.

Three informal open houses have been scheduled to coincide with points during the process when there is a need to inform the public of the project status and to solicit meaningful public input.

Open House No. 1 the public scoping meeting, was held on January 17, 1985. The purpose of the meeting was to introduce the project to the public, identify issues to be considered in preparation of the EIS, and receive public input relative to possible construction alternatives.

Open House No. 2 has tentatively been scheduled for August 10, 1985. The primary purpose of the meeting will be to describe the screening criteria used to select alternatives of be studied in the Draft EIS, identify potential significant impacts that may be associated with each alternative, and receive input regarding the project as a whole.

Open House No. 3 has tentatively been scheduled for May 18, 1986. The purpose of the meeting will be to present the preferred alternative, discuss evaluation criteria, and solicit public comment.

All of the community meetings will use an informal format suitable to the information being presented. Guests will be asked to sign in. Handouts containing project information and a questionnaire will be given out at this time.

Graphic display materials for each open house will include:

- A color aerial mosaic.
- Proposed alternatives.
- Alternative evaluation criteria.
- Schedule information.

Other displays appropriate to the particular meeting and any other information considered relevant by the IDT will also be presented or available.

Notification

Flyers will be distributed to affected areas. These flyers will be posted in conspicuous locations along the proposed route and in suitable businesses. Time frame: two weeks prior to each open house.

Appropriate legal notices and advertisements will be placed in selected newspapers announcing the time, location, and purpose for each open house or meeting. This same information will be included on the flyer. If appropriate, maps or other small graphics may be included in these publications. Time frame: two weeks prior to each open house or meeting.

Press releases will be distributed to local newspapers concerning upcoming open houses or meetings. The following information will be included:

- Time and location.
- A review of the purpose of the study.
- A list of study participants.
- A simplified project schedule indicating the current project status.
- A review of major issues.
- A report of input received at the previous open house or meeting.
- A discussion of project alternatives
- A review of the process used to evaluate alternatives.

Letters, including a copy of the press release, will be sent to state legislators, the mayor of Fall City, and the Jefferson County Commission, inviting them to attend. Time frame: 17 days prior to each meeting.

A newsletter will follow each open house. The newsletter will summarize what was presented, comments received, and the direction being taken concerning the project. This newsletter will be distributed to all interested citizens and local officials. Time frame: Approximately two to four weeks following each open house or meeting.

Project Hearing

The final element of the public involvement plan, a formal design/environmental hearing, will be held not less than 30 days following circulation of the Draft EIS. The purpose of the hearing will be to formally present design alternatives and their associated environmental impacts to the public for comments. The hearing process will follow procedures outlined in Section 208 of the *Design Manual*. Included will be preparation of a prehearing packet, hearing notice, and legislative/news media capsule project descriptions for OSC review.

The project hearing will consist of an open house followed be a transcribed formal hearing. The format and agenda will be finalized prior to submittal of the prehearing packet, 60 days before the scheduled hearing date.

The project schedule includes key public involvement dates.

411 Environmental Documentation and Procedures

411.01	Introduction
411.02	Document Standards
411.03	Classification (CE, EA or EIS)
411.04	Documents and Procedures for Class II (CE) Projects
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411.06	Documents and Procedures for Class I (EIS) Projects
411.07	Procedures for a Joint NEPA/SEPA EIS
411.08	Procedures for a SEPA-only EIS
411.09	Preparation of an EIS
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411.12	Section 4(f) and Section 106 Documents and Procedures
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411.14	Exhibits

Key to Icons



Web site.*



Interagency agreement.

411.01 Introduction

This chapter describes the environmental documentation requirements during the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process. Detailed guidance is given for the major steps in the environmental review process. The chapter focuses on documentation and procedural requirements:

- Standards applicable to all environmental documents.
- Documents and procedures required for three classes of projects: those
 Categorically Exempt or Excluded from environmental requirements (CE), those
 requiring an Environmental Assessment (EA) or Checklist, and those requiring an
 Environmental Impact Statement (EIS).
- Specific guidance for NEPA/SEPA EISs and for SEPA-only EISs.
- Preparation of EIS document
- Guidance for Section 4(f), Section 106 evaluations, reevaluations and supplementary documents.

NEPA/SEPA legislation and implementing regulations require implementation and monitoring of mitigation measures to reduce or eliminate adverse environmental impacts associated with a planned action. For WSDOT procedures on tracking and implementing environmental commitments during Design and Environmental Review, see Chapter 490.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

Overall FHWA guidance on NEPA documentation requirements are online at FHWA's web site:

1

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then NEPA: Project Development Process, then Documentation.

Or by direct link:



http://www.fhwa.dot.gov/environment/nepa/document.htm

(1) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed in **Section 410.01**. Others are found in the general list in **Appendix A**.

(2) Glossary

For a glossary of terms used in this chapter, see **Section 410.01**. See **Appendix B** for a general glossary of terms used in the EPM.

411.02 Document Standards

This section contains standards for documents prepared during the environmental analysis and review process

(1) Reader-Friendly Document Tool Kit

WSDOT has prepared the *Reader-Friendly Tool Kit* as a guide for EIS/EA and discipline report managers, coordinators, and writers to make environmental documents easier for the public to read and understand. The kit includes specific tools for developing EISs, EAs, and discipline reports. The tool kit is available online, along with examples of reader-friendly documents, at:



It is expected that by July 1, 2005 projects will implement the basic concepts of the Reader-Friendly Tool Kit and by January 1, 2006 all WSDOT EISs and EAs will use the reader-friendly document template, with few exceptions to be determined on a case-by-case basis after consulting with the Environmental Services Office. Please see the tool kit at the on-line address above for more specific information.

The WSDOT Environmental Services Office Compliance Branch can provide examples of good quality formatted environmental impact statements, environmental assessments and other environmental documents to assist projects as a point of reference. For additional information please contact Phil KauzLoric in the Compliance Branch at kauzlop@wsdot.wa.gov or at 360-705-7486 or Ernest Combs at CombsE@wsdot.wa.gov or at 360-705-7498.

(2) Level of Detail

EISs should be as concise as possible. Both NEPA and SEPA suggest page limits. For a NEPA EIS, the main body of text for average proposals should not exceed 150 pages. A NEPA EIS of unusual scope or complexity should not exceed 300 pages (40 CFR 1502.7). SEPA EISs should not exceed 75 pages, unless unusually complex and then no more than 150 pages (WAC 197-11-415).

The level of detail provided for each element of the environment analyzed should be commensurate with the significance of its potential impact.

Impacts and alternatives should be discussed only to the level of detail appropriate to the level of planning for the proposal. The EIS discussion of alternatives should be limited to a general discussion of the impacts of the alternative proposals including any required mitigation. Under SEPA, sufficient information is needed to make a reasoned choice among alternatives. If there is insufficient information available, a worst case scenario may be required (WAC 197-11-080). The level of effort is also dictated by the amount of project design effort required to determine the footprint of the proposal. This allows the type, size, and location of the facility to be identified, which in turn allows the analysis of the impacts. Impacts can usually be properly assessed when design is 15 to 30 percent complete.

For a draft EIS, all reasonable alternatives under consideration (including nobuild) need to be developed to a comparable level of detail in the draft EIS so their comparative merits may be evaluated (40 CFR 1502.14(b) and (d)).

An exception to the comparable level of detail is described in *FHWA Technical Advisory* T 6640.8A (October 30, 1987), Section V, Part E. Alternatives: "Development of more detailed design for some aspects (e.g., Section 4(f), COE or CG permits, noise, wetlands) of one or more alternatives may be necessary during preparation of the draft and final EIS to evaluate impacts or mitigation measures or to address issues raised by other agencies or the public."

(3) Using Existing Documents

NEPA CEQ regulations and SEPA rules allow the use of existing documents to reduce duplication and unnecessary paperwork. If an analysis has already been done for the proposed project or a similar project, it does not need to be duplicated. Existing documents can be used in any of the following ways:

- Adoption (CEQ 40 CFR 1506.3, and WAC 197-11-630). See Section 411.05(5).
- Addendum (CEQ 40 CFR 1502.9, and WAC 197-11-625).
- Incorporation by reference (CEQ 40 CFR 1502.21, and WAC 197-11-635).
- Supplemental EIS (CEQ 40 CFR 1502.9, and WAC 197-11-620). See Section 411.13.

(4) Additional EIS Format Information

FHWA guidelines describe three options for preparing a NEPA Final EIS: traditional, condensed, and abbreviated. See FHWA Technical Advisory T 6640.8A, online at:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

Ecology's technical assistance on SEPA EIS guidelines describe format (WAC 197-11-430), content (WAC 197-11-440), differing formats (WAC 197-11-560), and non-project proposals (WAC 197-11-442 and 197-11-443) within the Ecology's SEPA Rules section. The information is online at Ecology's web site:

http://www.ecy.wa.gov/

Click on Services, then SEPA/Environmental Review.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/sepa/lawandrule.html

For detailed guidance, see the 2003 SEPA Handbook, on-line at:

http://www.ecy.wa.gov/programs/sea/sepa/handbk.htm

(5) Tri-Message Page

On the back of the title page, three standard messages should be displayed:

- Information access for people with disabilities (ADA requirement).
- Assurance of compliance with the Civil Rights Act, Title VI.
- Note on units of measurement (English or metric) now optional since metric units are no longer required by FHWA.

(a) Information Access for Persons with Disabilities

Below is a notice that is to be included in all environmental documents distributed to the public. This notice should be on a separate page, immediately following the title page of the EIS or EA, and in larger type than the rest of the document. Refer to the "Tri-Message Page" on the EA outline, **Exhibit 411-3**, page 2.



Persons with disabilities may request this information be prepared and supplied in alternate forms by calling the WSDOT ADA Accommodation Hotline collect 206-389-2839. Persons with vision or hearing impairments may access the WA State Telecommunications Relay Service at TT 1-800-833-6388, Tele-Braille 1-800-833-6385, or Voice 1-800-833-6384, and ask to be connected to 360-705-7097.

For general information, this ADA message pertains to advertising a public meeting or written material such as a newsletter: "The site is accessible to persons with disabilities. Individuals requiring reasonable accommodation may request written materials in alternative formats, sign language interpreters, physical accessibility accommodations, or other reasonable accommodation by calling [add name of an optional Region contact for a local presence] (collect) at (___) ____ or the WSDOT ADA Accommodation Hotline (collect) at 360-664-9009. Persons with hearing impairments may access Washington State Telecommunications Relay Service (TTY) at 1-800-833-6388, Tele-Braille at 1-800-833-6385, or Voice at 1-800-833-6384, and ask to be connected to 360-705-7097."

(b) Civil Rights Assurance

Include the following statement: "Washington State Department of Transportation (WSDOT) hereby gives public notice that it is the policy of the department to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898, and the related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, sex, national origin, or low income, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which WSDOT receives federal financial assistance."

(c) Metric Measurement Units

WSDOT's current policy is to require only English units of measurement. FHWA no longer requires use of metric units for environmental documents such as ECSs, CEs, EAs, EISs, and Section 4(f) Evaluations published under FHWA rules.

Since federal and state permitting agencies are not accustomed to working in metric units, all permit drawings should be submitted in English units with no reference to metric equivalence. National Oceanic and Atmospheric Administration Fisheries apparently accepts either metric or English units for Biological Assessments.

ASTM E 380-92 is recommended as a source of information on metric conversion. When both measures are used, the metric unit should come first, followed by the English unit in parenthesis; for example: "The HOV lane is separated from adjacent lanes by a designated buffer width of 0.6 to 1.2 m (2 to 4 ft)."

(6) Availability and Cost of Environmental Documents

The lead agency shall retain NEPA documents and make them available to the public in accordance with 23 CFR 771.119(e) and (f), 23 CFR 771.123(g), and 23 CFR 771.125(g). Normally, copies are furnished free of charge. However, with FHWA concurrence, parties requesting an EIS may be charged a fee not to exceed the actual cost of reproducing the document.

The lead agency shall retain SEPA documents and make them available in accordance with RCW 42.17, charging only those costs allowed plus mailing costs. However, no charge shall be levied for circulation of documents to other agencies. Agencies are encouraged to waive the charge of an environmental document requested by a public interest organization (WAC 197-11-504).

WSDOT practice is that copies of all environmental documents are distributed during the initial circulation free of charge. Requests for documents received after the initial circulation, or for additional copies of a document, may be subject to a fee not to exceed the actual cost of reproducing the document.

If a fee is charged for a document, the document should include the following statement: "The cost of this document is \$_____, which does not exceed the cost of printing."

The document should include a statement that "This document is available for public review at the following locations..." such as WSDOT Regional Office, Ecology, Office of Community Development, FHWA or other federal agency offices, public libraries, and city or county government offices.

Preliminary environmental documents are not subject to Freedom of Information Act requirements for public disclosure. For preliminary review, a DEIS or FEIS is distributed for agency review prior to release of the DEIS or FEIS to the public. Pursuant to FHWA legal guidance, the following language should be added to the outside cover of a preliminary Draft EIS or preliminary EIS circulated for agency review:

"WSDOT and FHWA [co-lead agencies] have determined that the review comments on this preliminary document are an intergovernmental exchange that may be withheld under the freedom of information act request. Premature release of this material to any segment of the public could give some sectors an unfair advantage and would have a 'chilling effect' on intergovernmental coordination and the success of the cooperating agency concept. For these reasons, we respectively request that the public not be given access to this document."

(7) Use of Consultant Logo

Neither WSDOT nor FHWA advertises or endorses any particular consultant firm. In general, consultant logos on documents are acceptable only when the product is the intellectual property of the consultant or the consultant is liable for the contents.

A consultant logo is not displayed on:

- Promotional material for an open house or other WSDOT event (e.g., pamphlets, displays, newsletter, flyers, ads).
- Studies (e.g., route development or corridor feasibility studies) which compile different discipline studies to reflect a WSDOT position on an issue.
- Environmental documents (such as an EIS, EA, or Documented CE). These
 documents typically contain a compilation of discipline study results that
 may be extracted and displayed out of context. Without the logo, the
 consultant is released from liability for the environmental document.

A consultant logo can be displayed on the types of documents described below.

(a) Discipline Reports

The consultant is liable for the contents of the product. It is inappropriate for WSDOT to change the report. WSDOT provides written comments on drafts for the consultant to address. If WSDOT staff disagree with the report and modify it, the consultant logo should come off and WSDOT logo added. The following text is included in the title page: "Prepared for the Washington State Department of Transportation."

(b) Environmental Documents

Consultant logos/names are appropriate in two places in WSDOT environmental documents:

• In an appendix titled "Discipline Studies Prepared By." Reference is made to the consulting firm and the individual responsible for

preparing the work. In the same appendix, WSDOT and FHWA staff are identified, either as "Prepared By" or "Guidance and Review By."

On a SEPA fact sheet included in a combined NEPA/SEPA EIS. The SEPA fact sheet appears in the front of the EIS, just behind the NEPA title/signature sheet and the page containing the "alternate format," "Title VI," and "Metric" messages. The SEPA fact sheet contains an entry for "prepared by." The name of the consultant firm appears there.

411.03 Classification (CE, EA or EIS)

Projects are classified for environmental review purposes during Project Scoping. This process is documented using WSDOT's Environmental Review Summary. Section 310.07 contains a detailed description of the classification system and examples of projects falling into each class. Briefly, Class I projects require an EIS; Class II projects are Categorically Excluded or Exempt (CE) from NEPA/SEPA requirements; and Class III projects require an Environmental Assessment (EA) or a SEPA Threshold Determination (DS, DNS, or Mitigated DNS) and accompanying Environmental Checklist to determine whether significant impacts are likely (23 CFR 771.115).

Exhibit 411-1 illustrates the review process for Class I, II, and III projects. Critical path timelines for preliminary engineering of hypothetical Class I, II, and III projects are online via the ESO web site.

411.04 Documents and Procedures for Class II (CE) Projects

Actions that do not individually or cumulatively have a significant environmental effect, as defined in NEPA/SEPA regulations, are excluded from requirements to prepare an EA or EIS. Such projects are classified as Categorical Exclusions (NEPA) and Categorical Exemptions (SEPA). Some projects are excluded from NEPA review, but still require SEPA review (e.g., any state or local action may require SEPA review, WAC 197-11-660). Similarly, some projects categorically exempt with respect to SEPA may require additional documentation in the NEPA process. See Exhibit 411-1(a) for the NEPA Class II process flow chart. Critical path timelines for preliminary engineering on a hypothetical Class II CE project and a hypothetical Class II DCE project are online via the ESO Compliance Branch web site:



http://www.wsdot.wa.gov/environment/compliance

Projects that qualify as categorical exclusions under NEPA are listed in FHWA rules (23 CFR 771.117). Projects that qualify as categorically exempt under SEPA are listed in WAC 197-11-800 through 880. WSDOT, as SEPA lead agency, has another list of SEPA-exempt projects in WAC 468-12-800 and WAC 468-12-880.

WSDOT has an implementing agreement (June, 1996) with the Washington State Department of Ecology (Ecology) covering adoption of documented Categorical Exclusions. See Section 310.07; the agreement is online via ESO's Compliance Branch web site:



http://www.wsdot.wa.gov/environment/compliance/agreements.htm

(1) Required Documentation

(a) NEPA CE or Documented CE

Projects meeting the CEQ and FHWA criteria for Categorical Exclusions (CEs) are listed in FHWA regulations (23 CFR 771.117 (c)). The Programmatic Categorical Exclusion Approvals Memorandum of Understanding (MOU) between FHWA and WSDOT (May 25, 1999) identifies projects that are categorically excluded under certain conditions and do not require further approval by FHWA or further federal environmental documentation. See Section 310.07; the agreement is online via ESO's Compliance Branch web site:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

Other actions, such as those listed in 23 CFR 771.117 (d), may be classified as Documented CEs upon FHWA approval of the Environmental Classification Summary (ECS) as described in Section 310.05. An action that would normally be classified as a CE may be classified as a DCE if any of the following unusual circumstances apply:

- Any federal lands are affected or impacted.
- A federal Corps of Engineers Section 10 or Section 404 (Nationwide or Individual) permit is required.
- Substantial or uncertain impact may occur on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act. In such cases a separate Section 4(f), Section 106 evaluation, or Cultural Resource Survey and accompanying State Historic Preservation Officer (SHPO) concurrence is required. See Section 411.12, Section 455.05, and Section 456.05.
- Possible impact on habitat or species protected under the Endangered Species Act (ESA). Supporting documentation is submitted to FHWA with the ECS form.

Although most project design is approved by the "Certified Acceptance" authority delegated to the Regions by FHWA, specialty areas of expertise still currently require approval from WSDOT Headquarters in specific cases, such as construction improvements proposed for the Interstate system, landscape plans, and certain hydraulic reports and studies.

A project that is classified as a NEPA CE must still satisfy SEPA requirements if state funds are being used.

(b) SEPA CE

A project is considered a Categorical Exemption (CE) when it meets the requirements of WAC 197-11-305, WAC 197-11-800, WAC 197-11-860, WAC 468-12-800, or WAC 468-12-880). The Environmental Review Summary (ERS) identifying the project as a SEPA CE is the only environmental documentation necessary.

(2) Public Notice

There are no public notice requirements for CEs. However, most projects classified as categorically excluded under NEPA will need to be examined to

determine if they are also exempt under SEPA. If not exempt under SEPA, the project will often require the distribution of a threshold determination (DS or DNS) and Environmental Checklist, associated public comment period, and Public Notice published in an area newspaper serving as typical public involvement. A typical impact associated with a routine excluded and/or exempt project could include a short-term delay or nuisance during construction. The main goal is to inform the public when the work will occur and how to avoid problems.

News releases and other appropriate public contact should begin shortly before construction. These communications should continue as needed during the construction period. See also Section 410.06.

411.05 Documents and Procedures for Class III (EA and Checklist) Projects

All EA documentation must comply with the requirements of NEPA and implementing regulations (CEQ 40 CFR 1501-1508 and FHWA 23 CFR 771.119-121).

Other environmental documentation, such as issuance of a threshold determination (DS, DNS, or Mitigated DNS) and accompanying Environmental Checklist, follows SEPA Rules as the controlling authority (WAC 197-11-315 *et seq.*). See **Exhibit 411-1(a)** for the NEPA Class III process flow chart. A critical path timeline for preliminary engineering <u>on</u> a hypothetical Class III (EA) project is online via the ESO Compliance Branch web site:



http://www.wsdot.wa.gov/environment/compliance

(1) Overview

(a) NEPA EA and Section 4(f) Evaluation

Any WSDOT project that involves federal funding, federal lands, or federal permits must comply with NEPA procedures. These are listed below and described in detail in this section:

- Hold partner confirmation meeting (see Section 410.05(9)).
- Prepare the Environmental Assessment (EA) and Section 4(f)
 Evaluation if required (see Section 411.12 and Section 455.05).
- Publish a notice of availability and/or public hearing notice.
- Review and respond to comments and incorporate into Finding of No Significant Impact (FONSI). The FONSI includes the Final 4(f) Evaluation, unless there is a programmatic 4(f); then a final 4(f) is not required.
- Submit to FHWA with request for a Finding of No Significant Impact.
- Notify agencies that FONSI is available.

(b) SEPA Threshold Determination/Environmental Checklist

For projects using state funds but no federal funds, where minor environmental impacts are anticipated, SEPA requires distribution of the threshold determination and accompanying Environmental Checklist. There is no direct SEPA equivalent of the NEPA EA.

If the project is not categorically exempt as defined in WAC 197-11-800, the Regional Office:

- Prepares the SEPA Environmental Checklist and threshold determination (DNS, or mitigated DNS).
- Obtains the signature of the Regional Administrator or designee.
- Submits a copy to Ecology for listing in the SEPA register, and to agencies with jurisdiction, affected tribes, and others listed in WAC 197-11-340(2)(b).

If public comment is required under WAC 197-11-340(2)(a) (e.g., approvals are needed from other agencies with jurisdiction), the Region:

- Prepares the checklist and threshold determination (DNS, or mitigated DNS).
- Obtains the signature of the Regional Administrator or designee.
- Circulates for a 14-day review and comment period in accordance with WAC 197-11-340(2)(b) or WAC 468-12-510(a).

The Region then evaluates comments and proceeds to:

- Confirm the validity of the DNS; or
- Prepare a revised DNS and revised checklist and recirculate in accordance with WAC 197-11-340(2)(f); or
- Withdraw the DNS in accordance with WAC 197-11-340, prepare a Determination of Significance (DS), and proceed with an EIS.

(2) NEPA Preliminary Environmental Assessment (EA) and FHWA Section 4(f) Evaluation

The Region prepares a preliminary EA as shown in **Exhibit 411-3**. Include an area map, vicinity map, site plan, photogrammetric maps (to depict the environmental setting), summaries of discipline reports, and any agency coordination letters such as endangered species listings, prime and unique farmland determinations, Section 106 tribal consultation, and archaeological/historic reports. If the project involves Section 4(f) lands, a separate evaluation is required and is included as a separate section in the EA. See **Section 411.12** and **Section 455.05** for details.

(a) Federal Agency Review

The preliminary EA and Section 4(f) evaluation are submitted to the federal lead agency for review and comment. If the reviewers determine that the proposal may have significant environmental impacts, the proposal is reevaluated to determine whether the significant impacts can be appropriately mitigated or eliminated. If the impacts cannot be eliminated, an EIS is required. If no significant impacts are found, the Regional Office

makes any needed revisions and requests federal lead agency concurrence to publish a notice announcing the public availability of the EA.

(b) Public Review and Comment

The public review and comment period for an EA is a minimum of 30 days. If a Section 4(f) evaluation is included, a minimum of 45 days is required. Since the comment period (for scoping and hearings) remains open under NEPA until the FONSI or ROD is issued by the federal agency, it is WSDOT practice to use the term "comments are requested by (fill in date)" in advertisements and notices to ensure timely receipt of comments for meaningful consideration. After that date expires, WSDOT has the option to extend the comment period if requested by the public or another agency, and it is judged reasonable for meaningful submittal of project comments. Following notification only to the requesting party, no further public advertisement of the comment period extension is required.

WSDOT practice is to advertise the availability of the EA and the public hearing, though there is no requirement to hold a hearing for EA documents. The document must be made available for public inspection at the Regional Office of WSDOT and the office of FHWA or other federal lead agency.

(1) Notice of Availability

The Region publishes a notice in the newspaper of general circulation in the area where the project is located (WAC 468-12-510(1)(b)(i)). The notice, similar to a public hearing notice, advises the public that the EA is available for review and comment and where the document may be obtained. It should briefly describe the proposed action and impacts identified in the assessment.

The notice of the EA's availability must be sent to affected units of federal, state, tribal, and local government. The notice must also be sent to the SEPA Coordinator at Ecology, who serves as the state intergovernmental review contact, and the Washington State Department of Community, Trade and Economic Development (CTED).

(2) Public Hearing

Public hearings are not required for Class II projects, but may be requested by an agency or organization. If a request for a hearing can be anticipated, it is best to plan ahead rather than wait until the end of the comment period to start preparing for the hearing.

EAs normally have less potential for environmental impacts and public controversy and, consequently, less potential for public hearings. The public hearing notice requirements follow the format and time schedule outlines in WSDOT's *Design Manual*, Section 220.04(9) and WAC 468-12-510. The notice of the public hearing published in local newspapers announces the availability of the EA and where it can be obtained or reviewed.

(3) EA Document Distribution

The EA is distributed to the Ecology SEPA Coordinator, any federal, state, or local agency or tribe known to have interest or special expertise in the areas addressed in the EA or that may be significantly affected. For example, if Section 4(f) property is involved, the document is sent to the Department of the Interior and to the agency with jurisdiction over the property. The U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries should be included in the distribution for projects that may affect wetlands or endangered species. If an individual Section 10 or Section 404 permit (Corps of Engineers) or Section 9 (Coast Guard) permit is required, a copy of the EA should be sent to the agency. (See Section 520.02, Section 520.03, and Section 520.04 for permit information.)

Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing an EA distribution list. See **Exhibit 411-2** for NEPA contact information. See also FHWA's Technical Advisory T 6640.8A, online via FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(3) Revised Environmental Assessment or Errata and Final Section 4(f) Evaluation

At the conclusion of the public review period, the Region evaluates all comments received, including comments from public hearings, meetings, and open houses. The Region responds to the comments and writes errata or revises the document as necessary. The Region Environmental Office or Headquarters Environmental Services Office reviews Finding of No Significant Impact (FONSI) package which includes the revised EA, and the WSDOT Director of Environmental Services signs the title page. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in Exhibit 411-2.

The Region may choose to issue an erratum as part of the FONSI, referencing minor changes in the EA.

For controversial projects, the FHWA may offer an informal legal review.

After the federal agency issues the FONSI, the signed FONSI is returned to the Region who forwards a copy to HQ ESO. The Regional Environmental Office notifies the WSDOT Environmental Services Compliance Branch via a letter that a FONSI is available from WSDOT or the federal lead agency.

If the public review reveals significant impacts (or controversy), the federal agency may determine that an EIS is necessary. See Section 411.06.

(4) Issue Finding of No Significant Impact (FONSI) (NEPA)

(a) Contents

Typical contents of a FONSI include:

- Cover (include Summary Statement of No Significant Impacts)
- Title Sheet (use EIS format in WSDOT Format Manual)
- Description of Proposed Action (recap from the EA)
- EA Coordination and Comments (list EA issue date, hearing date, and summary of comments)
- Supportive Environmental Findings
 - Farmland Finding
 - Wetland Finding
 - Environmental Justice (Minority Populations and Low-Income Populations)
- Attachments (indicate that the EA and EA/design hearing transcript are incorporated by reference into this FONSI. Indicate where copies of both documents can be obtained).
 - Errata to EA and Hearing Transcript
 - Notice of Availability of FONSI and Notice of Adoption of EA under SEPA with Publication Listing (text of notice and newspaper listing for notice)
 - FONSI distribution list
 - Mitigation commitment list
 - Written comments with responses
 - Hearing comments with responses

For guidance on the form and process for a NEPA FONSI, see FHWA Technical Advisory T 6640.08A, on line at FHWA's home page:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(b) FONSI Distribution

Federal regulations do not require formal distribution of a FONSI. Agencies must send a notice of the FONSI's availability to federal, state, and local government agencies likely to have an interest in the project. However, WSDOT practice is to circulate the FONSI in the same manner as EAs and EISs. This distribution normally includes, but is not limited to:

- Any federal agency that has jurisdiction by law or special expertise in any environmental impact involved.
- Any appropriate federal, state, or local agency authorized to develop and enforce environmental standards.
- Any affected tribe.

- Any person, organization, or agency that requests a copy of the document.
- Public officials, private interest groups, and members of the public having or expressing an interest in the proposed project, for example by submitting a comment on the EA.

Technical Advisory T 6640.8A encourages the lead agency to inform commenting agencies (or those requesting to be informed) of the status of the project and the disposition of their comments, and to provide them with a copy of the FONSI. Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a FONSI distribution list. See Exhibit 411-2 for NEPA contact information.

(5) Environmental Checklist/DNS (SEPA)

When the responsible official of the lead agency determines that the project will have no significant impacts, or that mitigation measures will reduce significant impacts to nonsignificance, a Determination of Nonsignificance (DNS) or a Mitigated Determination of Nonsignificance (MDNS) is issued.

(a) Adoption of NEPA EA Under SEPA Rules

Under WAC 197-11-610, an agency may adopt a NEPA Environmental Assessment to satisfy requirements for a Determination of Non-Significance or (SEPA) EIS, if the requirements of WAC 197-11-600 and WAC 197-11-630 are met, using the adoption form in WAC 197-11-965. See Ecology's *SEPA Handbook* and **Exhibit 411-4**. The adopting agency shall ensure that the adopted document is readily available to agencies and the public by:

- Sending a copy to agencies with jurisdiction, and
- Placing copies in libraries and other public offices, or distributing copies to those who request one.

(b) Additional Environmental Documentation

If environmental documentation is needed to support the DNS, such as a preservation of farmlands determination, historical or cultural resource surveys, wetland reports, shoreline analyses, critical area analyses, or floodplain evaluations, the Region requests the preparation of discipline reports and coordinates the processing of the reports to the appropriate agencies. The environmental documentation needed to support the DNS must be prepared before the DNS is issued.

(c) Public Review and Comment

Other agencies and the public are given an opportunity to comment through the public notice process. A comment period is not always required for a DNS. Criteria for determining when a comment period is required is stated in WAC 197-11-340(2)a. WSDOT's public notice procedures, described in WAC 468-12-510, include:

 Publishing a notice in a newspaper of general circulation in the area where the project is located (WAC 197-11-510(1)(b) and WAC 468-12-510(1)(a)(i)). See **Exhibit 411-5** for a DNS and public notice.

- Sending a copy of the checklist and DNS to any agency, organization, or member of the public requesting information, in writing, concerning the project (WAC 468-12-510 (1)(a)(ii)).
- Posting the property (an option under SEPA rules).

The environmental checklist and DNS or MDNS are also sent for comment to any local agency or political subdivision that may be affected by the project. Agencies with jurisdiction, Ecology headquarters and regional office, and any affected tribes also receive a copy of the checklist/DNS (or MDNS) for comment (WAC 197-11-508(1)(a)). Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a DNS distribution list. See Exhibit 411-2 for NEPA contact information.

411.06 Documents and Procedures for Class I (EIS) Projects

For projects requiring federal funds or federal permits, all EIS documentation must comply with the requirements of NEPA and implementing regulations (CEQ 40 CFR 1501-1508 and FHWA 23 CFR 771.123-125), as well as the new coordination and public input process for developing NEPA EISs established in Section 6002 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

Other EIS documentation uses the SEPA Rules as the controlling authority (WAC 197-11 Part 4). There is no guarantee that a NEPA EIS will meet SEPA requirements. The lead agency must independently evaluate the NEPA document to ensure adequate compliance with SEPA before deciding whether to adopt the EIS. See Section 411.07 for detailed procedures for joint NEPA/SEPA EISs and Section 411.08 for SEPA-only EISs.

On projects where one or more federal agencies have funding or permitting responsibility, one or more federal agencies are the lead agencies (typically FHWA for WSDOT highway projects). Other federal agencies may be involved as cooperating agencies. Projects jointly developed with a federal agency are prepared to comply with that agency's regulations and guidelines. For combined NEPA/SEPA EIS documents, a SEPA lead agency will also be designated.

See Exhibit 411-1(c) for the NEPA Class I process flow chart. A critical path timeline for preliminary engineering on a hypothetical Class I (EIS) project is online via the ESO Compliance Branch web site:



http://www.wsdot.wa.gov/environment/compliance

For further guidance on preparing NEPA EISs, see the FHWA Technical Advisory T 6640.8A online at:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandum EISs, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

For guidance on preparing SEPA EISs, see the SEPA Rules (WAC 197-11, Sections 360, 400 through 460, 560, 600 and 980). These rules and Ecology's SEPA Handbook are online at:



http://www.ecy.wa.gov/programs/sea/sepa/e-review.html

(1) **NEPA Overview**

A WSDOT project that anticipates substantial environmental, social, or economic impacts, and involves federal funding, federal lands, or federal permits, must comply with NEPA process and procedures for public involvement. An overview of the combined NEPA/SEPA process and procedures is outlined below and described in detail in **Section 411.07**.

- Hold partner confirmation meeting (see Section 410.05(9))
- Establish interdisciplinary team (IDT) and begin draft study plan
- Publish Notice of Intent (NEPA) and Determination of Significance (SEPA)
- Conduct scoping process
- Develop and apply screening criteria to alternatives developed so far
- Select alternatives to study in DEIS and process final study plan
- Begin discipline studies
- Prepare draft EIS
- Circulate DEIS and file with USEPA and Ecology
- Hold EIS/design public hearing if required or desired
- Select preferred alternative and prepare Final EIS
- Issue Final EIS and file with USEPA and Ecology
- Prepare and issue Record of Decision (NEPA) and Notice of Action Taken (SEPA)
- Wait for seven days prior to approving design file or eight-point access study

SAFETEA-LU Overview

Section 6002 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) establishes a new coordination and public input process for developing NEPA EISs for highway, public transportation capital, and multimodal projects. For more information on the new process, see Section 410.02.

SEPA Overview (3)

The primary purpose of a SEPA EIS is to ensure that SEPA's policies are an integral part of the ongoing programs and actions of state and local government. The EIS process is intended to provide an impartial discussion of significant environmental impacts and inform decision makers and the public of reasonable alternatives, including mitigation measures, that would avoid or minimize adverse impacts or enhance environmental quality. An outline of the SEPA process and procedures is outlined below and described in detail in Section 411.08.

Hold partner confirmation meeting (see Section 410.05(9))

- Establish interdisciplinary team (IDT) and begin draft study plan
- Publish Determination of Significance/Scoping Notice
- Conduct scoping process
- Develop and apply screening criteria to alternatives developed so far
- Select alternatives to study in DEIS and process final study plan
- Begin discipline studies
- Prepare draft EIS
- Circulate DEIS and file with Ecology
- Hold EIS/design public hearing if required or desired
- Select preferred alternative and prepare Final EIS
- Issue Final EIS and file with USEPA and Ecology
- Wait for seven days prior to approving design file or eight-point access study
- Issue Notice of Action Taken

(4) Interdisciplinary Team (IDT)

NEPA requires an interdisciplinary approach in the preparation of EISs (23 CFR 105(c)). WSDOT practice is to use an interdisciplinary team (IDT) to guide and direct the preparation of the EIS. An IDT is an advisory group composed of people with training or skills in the natural and social sciences, engineering, and environmental design. IDT members may come from agencies other than WSDOT. The team normally consists of a nucleus of people, supported by other experts. The interdisciplinary approach is used in the planning and design of transportation facilities involving an EIS. The team is established in the early stages of the environmental process when the Regional Office begins scoping and public involvement and when a Notice of Intent is submitted to FHWA.

The team should consist of a project manager (who in most cases is the interdisciplinary team chairperson), a project engineer, and experts from any of the following areas: acoustics, air quality, archaeology, architecture, biology, botany, communications, economics, geology, hydrology, landscape architecture, meteorology, Real Estate Services, R/W Plans, sanitary engineering, sociology, structural engineering, transportation planning, urban planning, and water quality. The number of experts selected for the interdisciplinary team depends on the nature and magnitude of the project. Each IDT member represents an expertise which applies to the EIS development. As such, they represent themselves and not the agency for which they work; however, they should keep their own agency apprised during project development.

(5) Signatory Agency Committee Agreement to Integrate Aquatic Permit Requirements into the NEPA/SEPA Process

The Signatory Agency Committee (SAC) Agreement applies to all WSDOT projects requiring a Corps of Engineers (Corps) individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS. Signatories are FHWA, NOAA Fisheries, Corps, USEPA, USFWS, Ecology, WDFW, and WSDOT. These agencies aim to integrate conditions of aquatic related permits and approvals, with

the NEPA/SEPA processes at the planning, programming and project development stages. The SAC process involves requests for resource agency "concurrence" at critical point in the NEPA process.

The agreement's priority is to avoid adverse impacts to waters of the U.S. and Washington, including wetlands, other aquatic resources, and associated sensitive species. The agreement also recognizes the need to consider non-water related impacts and acknowledges that those impacts may affect the decision on the least environmentally damaging practicable alternative.

Originally known as the "NEPA/Section 404 Merger," the agreement was revised in September 2002 and re-named the "Signatory Agency Committee Agreement to Integrate Aquatic Resource Permit Requirements into the NEPA and SEPA Processes in the State of Washington." The 2002 revision added process improvements, a full time facilitator and a defined Issue Resolution process. Additional process improvement amendments to the SAC Agreement are ongoing. See the web site referenced below for the most current version of the SAC Agreement.

During Planning and Programming, WSDOT has agreed to request signatory agencies to concur with the transportation purpose and need served by a project. WSDOT submits an "early warning" packet to SAC members 30 days prior to the project's first SAC presentation.

During Design and Environmental review, WSDOT has agreed to request regulatory/resource agency involvement early in the NEPA EIS process. Under the agreement:

- WSDOT requests signatory agencies to concur with project alternatives to be evaluated in the DEIS.
- WSDOT requests the Corps, USFWS, USEPA and NMFS to concur with the NEPA/SEPA preferred alternative/apparent Section 404 least environmentally damaging practicable alternative and aquatic compensatory mitigation plan. WSDOT also requests Ecology and WDFW to concur with NEPA/SEPA preferred alternative and aquatic compensatory mitigation plan.
- WSDOT agrees to provide the information necessary for agencies to identify
 the least environmentally damaging practicable alternative and proposed
 mitigation early in the joint NEPA/SEPA EIS process, and ensure that
 WSDOT responds to agency comments within the timeframes of the
 agreement.
- The Appendices to the SAC Agreement provide guidance to projects on preparing a Purpose and Need Statement (Appendix C), Aquatic Compensatory Mitigation Requirements (Appendix E) and Alternatives Analysis (Appendix D) and other information related to project development and the overall SAC process.

Please refer to Chapter 431 and Chapter 437 for details on NEPA/SEPA requirements related to surface water and wetlands, and Section 520.02 and Section 520.03 for details on Corps permits.

The SAC Agreement is online at:



Signatory Agency Committee Agreement to Integrate Aquatic Resource Permit Requirements into the National Environmental Policy Act and State Environmental Policy Act Processes in the Sate of Washington, September 17, 2002

411.07 Procedures for a Joint NEPA/SEPA EIS

A WSDOT project that involves federal funding, federal lands, or federal permits, and is likely to have substantial environmental, social, or economic impacts, must comply with NEPA process and procedures for preparing an EIS, as well as the new coordination and public input process for NEPA EISs established in SAFETEA-LU. Since WSDOT is a state agency, most WSDOT projects must also comply with SEPA requirements. An overview of the combined NEPA/SEPA EIS process and procedures is described in detail in this section, and some details regarding the new coordination and public input process required by SAFETEA-LU are discussed in Section 410.02. See Section 411.09 for guidance on preparing the EIS document.

(1) Notice of Intent (NEPA)/ Determination of Significance and Scoping Notice (SEPA)

(a) Notice of Intent (NOI)

If an EIS will be required for a project involving federal funds or federal permits, the Regional Office submits a draft Notice of Intent (NOI) to FHWA or the federal lead agency for publication in the *Federal Register*. The NOI advises federal agencies that an EIS will be prepared. The contents and guidelines for preparation of the notice are found in FHWA Technical Advisory T 6640.8A.

(b) Determination of Significance (DS)/Scoping Notice

The SEPA Determination of Significance (DS)/Scoping Notice is the state equivalent of the Notice of Intent. This notice is for projects using state or local funds, or requiring a state or local action. SEPA scoping requires a minimum 21-day comment period, public notice, and distribution (WAC 197-11-360, 408, and 411). It is not required for a NEPA EIS that will be adopted under SEPA.

A DS is prepared by the Region when it is determined that an EIS is needed. The DS/Scoping notice form is available in WAC 197-11-980. The Regional Office sends it directly to Ecology for inclusion in the daily update of the SEPA Register (currently found on Ecology's web site), and to other agencies, tribes, and others with interest in the project (WAC 197-11-360(3) and WAC 197-11-408).

The DS describes the main elements of the proposal, site location, and the major potential environmental impacts. **Exhibit 411-4** is a sample DS and adoption of an existing environmental document.

(2) EIS Scoping

The scoping process identifies the range of alternatives and impacts and the significant impacts to be addressed in the EIS. Scoping allows the resource agencies and the public to identify potential environmental concerns or controversy early in the project development. NEPA and SEPA rules require

scoping during preparation of the draft EIS (40 CFR 1501.7, 23 CFR 771.123, WAC 197-11-408). Neither NEPA or SEPA requires scoping for a supplemental EIS; however, the co-lead agencies can decide to hold an open house early in the supplemental EIS process that serves the same purpose. For details, see Section 411.09.

(3) Draft Environmental Impact Statement (DEIS)

The DEIS is the initial WSDOT project report. It identifies the alternative actions and presents an analysis of their relative impacts on the environment. It may identify a recommended course of action if one alternative is clearly preferred. The DEIS summarizes the early coordination and scoping process, identifies key issues, and presents pertinent information obtained through these efforts.

The Regional Office or Division prepares a preliminary DEIS using discipline reports and/or data supplied by the IDT and other sources, and begins a commitment file (see **Chapter 490**). The same office coordinates reviews by various HQ experts, the Attorney General's office (on controversial projects), and appropriate federal agencies. Review comments are returned to the Region for revision of the preliminary DEIS. For controversial projects, the FHWA may offer an informal legal review.

After reviewing changes made in response to comments on the preliminary DEIS, the Regional Office submits the DEIS to the WSDOT Director of Environmental Services, who approves the DEIS by signing the title page, and obtains concurrence for circulation by signature of appropriate federal official on the title page. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for prebriefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

The signed title page and approval to print the DEIS are returned to the Regional Office and the document is printed and made available for public review as described below.

(4) Notice of Availability/Public Hearing Notice

The Regional Office submits the DEIS to USEPA for processing and placement of a Notice of Availability in the *Federal Register*. A comment period of not less than 45 days begins upon publication of the notice in the *Federal Register*. For state-funded projects, the DEIS is also submitted to Ecology.

WSDOT is required to use the public notice procedures detailed in WAC 468-12-510(c) to inform the public that the DEIS is available and that a public hearing may be requested. If a hearing is required to fulfill any legal requirements, include information on the availability of the DEIS in the notice.

The hearing date is a minimum of 15 days after circulation of the DEIS if a design hearing is incorporated with the environmental hearing. The end of the comment period should be about two weeks or 15 days following the date of the public hearing. (23 CFR 771.123(h))

Public notice requirements include:

 Publishing the notice in a newspaper of general circulation in the county, city, or general geographic area where the proposal is located.

- Notifying agencies with jurisdiction, affected tribes, and groups known to be interested in the proposal or who have commented in writing about the proposal.
- Contacting news media and placing notices in appropriate regional, neighborhood, or ethnic periodicals.
- Giving public notice at least 15 days in advance of a public hearing. The environmental document continues to be available for 15 days after the hearing date (45 day comment period minus 30 days public notice leaves remaining 15 days of the comment period).

The DEIS Notice of Availability contains the following:

- Location of project.
- Brief description.
- Information on wetlands, floodplains, Section 4(f) lands, or endangered species if applicable.
- Purpose of EIS.
- Responsible agency.
- Federal lead agency (NEPA).
- Where documents are available.
- Where to send comments.
- "Comments are requested by (date)."
- Date, time, and location of public hearing or invitation to request a public hearing.

(5) Public Hearing

(a) NEPA

Public hearings are required for all NEPA EIS projects and for other NEPA projects when:

- There are identified environmental issues (e.g. heavy traffic volumes on local streets, visual quality), which should be discussed in a public forum. If a request for a hearing can be anticipated, planning for a hearing can save time, rather than waiting until the end of the comment period to start the procedures for the public hearing.
- WSDOT has a substantial interest in holding a hearing to further public comment and involvement.
- An agency with jurisdiction over the proposal (permitting agency) requests a hearing.

As a minimum, a notice of opportunity for a hearing is published in newspapers. The WSDOT Hearing Coordinator (at Headquarters) can provide examples and advice. Where hearings are not required by statute, informational meetings may serve as a useful forum for public involvement in the environmental process. See Section 410.06 and Design Manual Section 210 for further hearing requirements.

(b) SEPA

Public hearings on SEPA projects (WAC 197-11-502, 197-11-535, 468-12-510) are held when one or more of the following situations occur:

- The lead agency determines that a public hearing would assist in meeting its responsibility to implement the purposes and policies of SEPA.
- When two or more agencies with jurisdiction over a proposal make written request to the lead agency within 30 days of the issuance of the draft EIS.
- When 50 or more persons residing within a jurisdiction of the lead agency, or who would be adversely affected by the environmental impact of the proposal, make written request to the lead agency within thirty days of issuance of the draft EIS.

(6) Circulation of DEIS

Circulation of Draft and Final EISs is required under state and federal regulations (40 CFR 1502.19, WAC 197-11-455 and 460, and WAC 468-12-455 and 460). Generally, all copies sent out during the circulation of the DEIS are free of charge. After initial circulation, a fee may be charged which is not more than the cost of printing. See Section 411.02.

NEPA DEISs must be distributed by the Regional Office no later than the time the document is filed with the U.S. Environmental Protection Agency (USEPA) for publication in the *Federal Register*. Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a DEIS distribution list. See **Exhibit 411-2** for NEPA contact information.

Required distribution is as follows:

- Federal or agencies with jurisdiction or environmental expertise on the project.
- Tribes (affected by project, both "usual and accustomed areas" and fishery resources).
- Cities and counties in which adverse environmental impacts identified in the EIS may occur, if the proposal were implemented.
- Local agencies of political subdivisions whose public services would be changed as a result of implementation of the proposal (e.g., public works, parks, planning, local SEPA office, schools, water or sewer districts).
- The applicable local, area-wide, or regional agency, if any, that has been
 designated under federal law to conduct intergovernmental review and
 coordinate federal activities with state or local planning (e.g., Clean Air
 Agency, ports, Indian Fisheries Commission, transit authorities).
- Ecology Environmental Coordination Section (two copies).
- Media (legal and local newspapers).
- Public officials, private interest groups, and members of the public having or expressing an interest in the proposed project or DEIS.

The latter category normally includes:

• Each private interest group, but not each member.

- Public officials, private interest groups, or individuals who provided significant input during meetings and/or hearings.
- Individuals who have shown interest by attending several meetings, even though they did not provide specific input.
- Any individual who has shown interest by visiting an FHWA, WSDOT, or local agency office for information on the proposed project or by requesting a copy of the DEIS from the lead agency.

The DEIS is also distributed to:

- WSDOT Environmental Services Office
- Transportation Commission
- Attorney General
- State Library

When visual impacts are a significant issue, the DEIS should be circulated to officially designated local arts councils and other organizations interested in design, art, and architecture.

(7) Final Environmental Impact Statement (FEIS)

(a) Preliminary FEIS

After the public comment period, public and agency comments are evaluated to determine whether:

- Additional studies are required to respond to those comments.
- Impacts of the preferred alternative fall within an envelope of impacts for alternatives described in the DEIS (especially if a modified or hybrid alternative is selected as preferred).
- A supplemental EIS is required to provide additional or missing information prior to issuing a Final EIS.

The FEIS contains WSDOT's final recommendation or preferred alternative, lists or summarizes by group the comments received on the DEIS, summarizes citizen involvement, and describes procedures required to ensure that mitigation measures are implemented. The FEIS also documents compliance with environmental laws and Executive Orders.

If a DEIS adequately identifies and quantifies the environmental impacts of all reasonable alternatives, evaluate the next step by reviewing the FHWA Technical Advisory T 6640.8A, which gives three options for preparing a Final EIS: traditional approach, condensed Final EIS, and abbreviated Final EIS.

WSDOT practice is to produce reader-friendly documents with conclusions in one document. In the traditional approach, preferred by FHWA, the FEIS incorporates the DEIS (essentially in its entirety) with changes made as appropriate throughout the document. Changes may reflect the selection of an alternative, modifications to the project, updated information on the affected environment, changes in the assessment of impacts, selection of mitigation measures, and wetland and floodplain findings. These are the results of coordination, comments received on the DEIS, and responses to these comments. Since so much information is carried over from the draft

to the final EIS, important changes are sometimes difficult for the reader to identify. These can be highlighted in an introductory section or attached summary.

(b) Review and Publication of FEIS

The Regional Office reviews the preliminary FEIS and submits the document for review by the Attorney General's office (on controversial projects), and the appropriate lead federal and state agencies.

FHWA Legal Sufficiency Review of the Preliminary FEIS is required (23 CFR 771.125(b)). The review is performed by FHWA legal staff in San Francisco prior to FHWA formal approval of the final document and takes 30 to 45 days. The review is to determine document compliance with applicable FHWA and CEQ NEPA laws and regulations. It seeks to minimize the potential of losing the case in court if the project were to be litigated. It also provides some helpful hints in terms of documentation from a legal perspective.

After reviewing the preliminary FEIS and incorporating comments, the Regional Office prepares a draft Record of Decision (ROD) and submits it to the HQ Environmental Services Office along with the FEIS. The ESO reviews the FEIS, and the WSDOT Director of Environmental Services signs the title page. The federal agency approval to print is demonstrated by their signature on the title page, possibly with a short list of minor changes to make prior to printing. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in Exhibit 411-2.

The FEIS is then submitted to USEPA for publication of the FEIS Notice of Availability in the *Federal Register*.

(c) Distribution

After approval, the Regional Office distributes copies of the FEIS as follows (40 CFR 1502.19(d), WAC 197-11-460):

- Federal agencies (do not list co-lead agencies).
- Tribes (affected by project, both "usual and accustomed areas" and fishery resources).
- Ecology Environmental Coordination Section (two copies).
- State agencies (see Ecology's SEPA agency list; do not list co-lead agencies).
- Regional agencies (e.g., Clean Air Authority, transit, Indian Fisheries Commissions).
- County (public works, SEPA official).
- Local agencies (public works, parks, SEPA official, schools, water/sewer district).
- Libraries.
- Media (legal and local newspapers).

- Organizations and individuals who have expressed interest.
- HQ, Attorney General, and State Library.

Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a FEIS distribution list. See **Exhibit 411-2** for NEPA contact information.

Under NEPA rules, FEISs must be distributed no later than the time the document is filed with USEPA for publication of the FEIS Notice of Availability in the *Federal Register*. Under SEPA rules, the FEIS is issued within 60 days of the end of the comment period for the DEIS, unless the proposal is unusually large in scope, the environmental impact associated with the proposal is unusually complex, or extensive modifications are required to respond to the public comments.

(d) Notice of Availability

WSDOT notifies the public in a similar manner as for the DEIS, except there is no official comment period. Comments received during the 30 days following the issue of the FEIS will be noted and responded to in the Record of Decision and made available to the public upon request. For SEPA FEISs, the Region sends the FEIS, or notice that the FEIS is available, to anyone who commented on the DEIS and to those who received but did not comment on the DEIS. If the agency receives petitions from a specific group or organization, a notice or EIS may be sent to the group and not to each petitioner. The Region makes additional copies available in its offices for review (WAC 197-11-460). FEIS notification procedures are detailed in WAC 468-12-510(d).

(8) Record of Decision (NEPA) and Notice of Action Taken (SEPA)

(a) Record of Decision (ROD)

The draft Record of Decision (ROD), prepared by the Regional Office, accompanies the FEIS through the review and approval process. The ROD explains the reasons for the project decision, summarizes any mitigation measures that will be incorporated in the project, and documents any required Section 4(f) approval (CEQ 40 CFR 1505.2). Guidance on preparing and distributing the ROD is in FHWA's Technical Advisory T 6640.8A, online at:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

The ROD is intended by the CEQ to be an environmental document (CEQ 40 Questions, #34a). Therefore, it must be made available to the public through appropriate public notice as required by 40 CFR 1506.6(b). However, there is no specific requirement for publication of the ROD itself, either in the *Federal Register* or elsewhere. It is WSDOT practice to

publish a Notice of Availability in the newspapers previously used for project notices.

Under NEPA, FHWA or other federal lead agency issues the final ROD. The Regional Office obtains the approved ROD from the federal agency and circulates it to the State Construction Engineer and the State Operations and Maintenance Engineer, and advises that the project may advance to final design or (PS&E) permitting.

The following format is used in preparing a ROD:

- Decision Identify the selected alternative. Refer to the FEIS to avoid repetition.
- Alternatives considered Briefly describe each alternative (with reference to the FEIS, as above), explain and discuss the balancing of values underlying the decision. Values for economic, environmental, safety, traffic service, community planning, and other decision factors may vary in relative importance. Identify each significant value and the reasons why some values were considered more important than others. The ROD should reflect the manner in which these values were considered in arriving at the decision. Identify the environmentally preferred alternative or alternatives. In addition, if Section 4(f) property is used, summarize the Section 4(f) evaluation.
- Measures to minimize harm Describe all measures to minimize
 environmental harm that have been adopted for the proposed action.
 State whether all practicable measures to minimize environmental
 harm have been incorporated into the decision, and if not, why.
- Monitoring or enforcement program Describe any monitoring or enforcement program that has been adopted for the specific mitigation measures, as outlined in the FEIS.
- *Commitment list* Include an item-by-item list of commitments and mitigation measures from the commitment file. The list serves as a ready reference for the design, construction, and maintenance of the project (see **Chapter 490**).

(b) Notice of Action Taken (NAT)

Under SEPA, the Notice of Administrative Review and Notice of Action Taken (NAT) establish a statute of limitations on challenges to an environmental document. See **Exhibit 411-6** for a sample.

Under SEPA Rules (WAC 197-11-704), an "action" includes:

- New and continuing activities (including projects and programs) entirely or partly financed, assisted, conducted, regulated, licensed, or approved by agencies.
- New or revised agency rules, regulations, plans, policies, or procedures.
- Legislative proposals.

Issuance of an environmental document is not an action under SEPA, and the NAT should not be filed until an action such as approval of the design file has been taken by WSDOT.

The decision to publish a NAT is made by the <u>Project Office of a Region or mode</u>. Normally the <u>Environmental Manager of a Region or mode will</u> write and sign the NAT.

A NAT can be issued whether or not a public hearing has been held. It is an optional process for the purpose of limiting potential court challenges of an environmental document. SEPA was amended in 1995 to change the appeal period to within 21 days of the last newspaper publication of the NAT for both private and governmental projects (RCW 43.21C.080). A NAT should be published any time there is reason to believe challenges to the environmental document will be filed. Substantial controversy or known threats of challenges by project opponents are indicators that judicial review is likely. By limiting appeals to a certain time period, project schedules are less likely to be disrupted.

The NAT should be substantially in the form documented in WAC 197-11-990. The following notification procedure is specified in RCW 43.21C.080:

- Publishing notice on the same day of each week for two
 consecutive weeks in a legal newspaper of general circulation in the
 area where the property which is the subject of the action is located.
- Filing notice of such action with Ecology at its main office in Olympia prior to the date of the last newspaper publication.
- Notifying adjacent property owners and others by one of the following methods prior to the date of first newspaper publication (except for non-project actions):
 - Mailing to the latest recorded real property owners, as shown by the records of the county treasurer, who share a common boundary line with the property upon which the project is proposed, by U.S. mail, first class, postage prepaid.
 - 2. Posting of the notice in a conspicuous manner on the property upon which the project is to be constructed.

(c) Notice of Administrative Review

Under SEPA, the Notice of Administrative Review may be used at WSDOT's option, where there has been no public hearing and WSDOT wants an opportunity to develop a more extensive administrative record prior to a challenge to the agency action in Superior Court. Otherwise, a challenge would be filed in Superior Court within the time limit after publication of a Notice of Action Taken on the administrative record compiled by WSDOT.

The Notice of Administrative Review establishes a 30-day period in which a party may make a written request for administrative review to the WSDOT <u>Director of Environmental and Engineering Programs.</u> Upon receipt of such a request, and if the concerns cannot be resolved through

negotiations, WSDOT shall afford the party a hearing in accordance with RCW 34.04 and WAC 468-10 in an attempt to reach a decision.

If the party then wishes to seek judicial review of the administrative review decision, the aggrieved party shall first file a notice of intent to do so within 90 days of the issuance of the Notice of Administrative Review or within 30 days of the decision, whichever is later.

The Notice of Administrative Review is prepared by the Regional Office. The <u>Environmental Services Office Director</u> concurs and signs the notice. The Notice of Administrative Review should be prepared and filed as shown in WAC 468-12-510(e) and 468-12-680.

(9) Proceed with Design

After all environmental documents in the environmental and design stages have been approved and finalized (including environmental documents, eight-point access report for limited access highways, and Access Hearings, and R/W plan revisions if applicable), the project may advance to right of way acquisition and preparation of the PS&E.

411.08 Procedures for a SEPA-Only EIS

For a WSDOT project that does not involve federal funding, federal lands, or federal permits, but is expected to have substantial environmental impacts, only SEPA EIS process and procedures must be followed. These procedures are described in detail in this section. See Section 411.09 for guidance on preparing the EIS document.

(1) Determination of Significance (DS)/Scoping Notice

The SEPA Determination of Significance (DS)/Scoping Notice is for projects using state or local funds, or requiring a state or local action. SEPA scoping requires a minimum 21-day comment period, public notice, and distribution (WAC 197-11-360, 408, and 411).

A DS is prepared by the Region when it is determined that an EIS is needed. The DS/Scoping notice form is available in WAC 197-11-980. The Regional Office or Division sends it directly to the Department of Ecology for inclusion in the daily update of the SEPA Register (currently found in Ecology's web page on the Internet), and to other agencies, tribes, etc. with interest in the project.

The DS should describe the main elements of the proposal, site location, and the major potential environmental impacts. **Exhibit 411-4** is a sample DS and adoption of an existing environmental document.

(2) EIS Scoping

The scoping process identifies the range of alternatives and impacts and the significant impacts to be addressed in the EIS. Scoping allows the agency to identify potential environmental concerns or controversy early in the project development. SEPA rules require scoping during preparation of the draft EIS (WAC 197-11-408).

(3) Draft Environmental Impact Statement (DEIS) and Commitment File

The DEIS is the initial WSDOT project report. It identifies the alternative actions and presents an analysis of their relative impacts on the environment. It may

identify a recommended course of action if one alternative is clearly preferred. The DEIS summarizes the early coordination and scoping process, identifies key issues, and presents pertinent information obtained through these efforts.

The Regional Office or Division prepares a preliminary DEIS using discipline reports and/or data supplied by the IDT and other sources and begins the commitment file (see **Chapter 490**).

The same office coordinates reviews by various HQ experts, the Attorney General's office (on controversial projects), and appropriate federal agencies. Review comments are returned to the Region for revision of the preliminary DEIS. After reviewing changes made in response to comments on the preliminary DEIS, the Regional Office submits the DEIS to the WSDOT Director of Environmental Services, who approves the DEIS by signing the title page. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

The signed title page and approval to print the DEIS are returned to the Regional Office. The document is then printed, submitted to Ecology, and made available for public review.

A 30-day comment period begins from the date the DEIS is sent to Ecology and made publicly available; this period may be extended when WSDOT is both the lead agency and proponent.

(4) Public Hearing Notice/Notice of Availability

WSDOT is required to use the public notice procedures detailed in WAC 468-12-510(c) to inform the public that the DEIS is available and the procedures for requesting a public hearing. If a hearing is required to fulfill any legal requirements, include information on the availability of the DEIS in the notice.

Public notice requirements include:

- Publishing the notice in a newspaper of general circulation in the county, city, or general geographic area where the proposal is located.
- Notifying agencies with jurisdiction, affected tribes, and groups known to be interested in the proposal or who have commented in writing about the proposal.
- Contacting news media and placing notices in appropriate regional, neighborhood, or ethnic periodicals.
- Giving public notice at least 30 days in advance of a public hearing.

The DEIS Notice of Availability contains the following:

- Location of project.
- Brief description.
- Information on wetlands, floodplains, shorelines, or endangered species if applicable.
- Purpose of EIS.
- Responsible agency.

- Where documents are available.
- Where to send comments.
- Deadline for receiving comments (30 days for SEPA projects).
- Date and location of public hearing or invitation to request a public hearing.

(5) Public Hearing

Public hearings on SEPA projects (WAC 197-11-502, 197-11-535, 468-12-510) are held when one or more of the following situations occur:

- The lead agency determines that a public hearing would assist in meeting its responsibility to implement the purposes and policies of SEPA.
- When 50 or more persons residing within a jurisdiction of the lead agency, or who would be adversely affected by the environmental impact of the proposal, make written request to the lead agency within 30 days of issuance of the draft EIS.
- When two or more agencies with jurisdiction over a proposal make written request to the lead agency within 30 days of the issuance of the draft EIS.

(6) Circulation of DEIS

Circulation of Draft and Final EISs is required under SEPA regulations (WAC 197-11-455 and 460, and WAC 468-12-455 and 460). Generally, all copies sent out during the circulation of the DEIS are free of charge. After initial circulation, a fee may be charged which is not more than the cost of printing. See Section 411.02.

The distribution requirements of SEPA DEISs should follow the following procedures (WAC 197-11-455). Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a SEPA DEIS distribution list. See Exhibit 411-2 for NEPA contact information. The Region is responsible for distribution:

- Ecology Environmental Coordination Section (two copies).
- Each agency with jurisdiction over or environmental expertise on the proposal.
- Each city/county in which adverse environmental impacts identified in the EIS may occur, if the proposal were implemented.
- Each local agency of political subdivision whose public services would be changed as a result of implementation of the proposal.
- Any affected tribe.
- The applicable local, area-wide, or regional agency, if any, that has been designated under federal law to conduct intergovernmental review.
- Any person requesting a copy of the EIS from the lead agency.

When visual impacts are a significant issue, the DEIS should be circulated to officially designated local arts councils and other organizations interested in design, art, and architecture.

(7) Final Environmental Impact Statement (FEIS)

(a) Preliminary FEIS

After the public comment period, the Regional Office or Division prepares a preliminary FEIS. The FEIS contains WSDOT's final recommendation or preferred alternative, discusses substantive comments received on the DEIS, summarizes citizen involvement, and describes procedures required to ensure that mitigation measures are implemented. The FEIS also documents compliance with environmental laws and Executive Orders.

(b) Review and Publication of FEIS

The Regional Office reviews the preliminary FEIS and submits the document for review by the Attorney General's office (on controversial projects) and the appropriate lead and cooperating agencies.

Following any revisions, the Regional Environmental Office or Environmental Services Office reviews the Final EIS. After being briefed and giving approval, the WSDOT Director of Environmental Services signs the title page. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in Exhibit 411-2.

Under SEPA rules, the FEIS is issued within 60 days of the end of the comment period for the DEIS, unless the proposal is unusually large in scope, the environmental impact associated with the proposal is unusually complex, or extensive modifications are required to respond to the public comments.

(c) Distribution

After approval, the Regional Office distributes the FEIS to all state and local agencies with jurisdiction; and agencies, private organizations, and members of the public who provided substantive comments on the draft EIS or who requested a copy of the FEIS (WAC 197-11-460). Copies must be sent to Ecology's Environmental Coordination Section (two copies), WSDOT Environmental Services Office, Attorney General, and State Library. Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a SEPA FEIS distribution list. See Exhibit 411-2 for NEPA contact information.

(d) Notice of Availability

WSDOT notifies the public in a similar manner as for the DEIS except there is no comment period. For SEPA FEISs, the Region shall send the FEIS, or notice that the FEIS is available, to anyone who commented on the DEIS and to those who received but did not comment on the DEIS. If the agency receives petitions from a specific group or organization, a notice or EIS may be sent to the group and not to each petitioner. The Region shall make additional copies available in its offices for review (WAC 197-11-460). FEIS notification procedures are detailed in WAC 468-12-510(d).

(8) Notice of Action Taken (SEPA)

Under SEPA, the Notice of Administrative Review and Notice of Action Taken (NAT) establish a statute of limitations on challenges to an environmental document. See **Exhibit 411-6** for a sample; see also WAC 197-11-990.

Under SEPA Rules (WAC 197-11-704), an "action" includes:

- New and continuing activities (including projects and programs) entirely or partly financed, assisted, conducted, regulated, licensed, or approved by agencies.
- New or revised agency rules, regulations, plans, policies, or procedures.
- Legislative proposals.

Issuance of an environmental document is not an action under SEPA, and the NAT should not be filed until an action such as approval of the design file has been taken by WSDOT.

The decision to publish a NAT is made by the <u>Project Office of a Region or mode</u>. Normally the <u>Environmental Manager of a Region or mode will write</u> and sign the NAT.

A NAT can be issued whether or not a public hearing has been held. It is an optional process for the purpose of limiting potential court challenges of an environmental document. SEPA was amended in 1995 to change the appeal period to within 21 days of the last newspaper publication of the NAT for both private and governmental projects (RCW 43.21C.080). A NAT should be published any time there is reason to believe challenges to the environmental document will be filed. Substantial controversy or known threats of challenges by project opponents are indicators that judicial review is likely. By limiting appeals to a certain time period, project schedules are less likely to be disrupted.

(a) Notification Procedure

The following notification procedure is specified in RCW 43.21C.080:

- Publishing notice on the same day of each week for two consecutive weeks in a legal newspaper of general circulation in the area where the property which is the subject of the action is located.
- Filing notice of such action with Ecology at its main office in Olympia prior to the date of the last newspaper publication.
- Notifying adjacent property owners and others by one of the following methods prior to the date of first newspaper publication (except for non-project actions):
 - 1. Mailing to the latest recorded real property owners, as shown by the records of the county treasurer, who share a common boundary line with the property upon which the project is proposed, by U.S. mail, first class, postage prepaid.
 - 2. Posting of the notice in a conspicuous manner on the property upon which the project is to be constructed.

Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a SEPA NAT distribution list. See **Exhibit 411-2** for NEPA contact information.

(b) Notice of Administrative Review

Under SEPA, the Notice of Administrative Review may be used at WSDOT's option, where there has been no public hearing and WSDOT wants an opportunity to develop a more extensive administrative record prior to a challenge to the agency action in Superior Court. Otherwise, a challenge would be filed in Superior Court within the time limit after publication of a Notice of Action Taken on the administrative record compiled by WSDOT.

The Notice of Administrative Review establishes a 30-day period in which a party may make a written request for administrative review to the WSDOT <u>Director of Environmental and Engineering Programs</u>. Upon receipt of such a request, and if the concerns cannot be resolved through negotiations, WSDOT shall afford the party a hearing in accordance with RCW 34.04 and WAC 468-10 in an attempt to reach a decision.

If the party then wishes to seek judicial review of the administrative review decision, the aggrieved party shall first file a notice of intent to do so within 90 days of the issuance of the Notice of Administrative Review or within 30 days of the decision, whichever is later.

The Notice of Administrative Review is prepared by the Regional Office. The <u>Environmental Services Office Director</u> concurs and signs the notice. The Notice of Administrative Review should be prepared and filed as shown in WAC 468-12-510(e) and 468-12-680.

(9) Proceed with Design

After all environmental documents have been approved and finalized, the project proceeds to final design (PS&E) and permitting.

411.09 Preparation of an EIS

The primary purpose of an environmental impact statement is to ensure that the intent of NEPA and/or SEPA becomes an integral part of programs and actions of state and local governments. The EIS is used by agency officials in conjunction with other relevant materials and considerations to plan actions and make decisions.

The EIS is to provide an impartial discussion of significant environmental impacts and inform decision makers and the public of reasonable alternatives, including mitigation measures, that would avoid or minimize adverse impacts or enhance environmental quality. The EIS process enables government agencies and interested citizens to review and comment on proposed government actions. The process is intended to assist the agencies and applicants to improve their plans and decisions, and to encourage the resolution of potential concerns or problems prior to issuing a final statement.

This section provides an overview of the major elements of an EIS, and the internal WSDOT guidance for content preparation. See also **Section 411.02** on Document Standards. Key areas of focus are:

- EIS Scoping
- Organization of EIS
- Elements of the Environment

- Purpose and Need Statement
- Alternatives to the Proposal
- Affected Environment
- Analysis of Impacts
- Mitigation of Adverse Impacts
- Documenting Environmental Benefits

(1) EIS Scoping

EIS Scoping (not to be confused with Project Scoping, which is addressed in Chapter 310) is a method for identifying the range of alternatives and potentially significant impacts to be addressed in the EIS. This type of scoping allows the agency to identify potential environmental concerns or controversy early in project design. NEPA and SEPA rules require scoping during preparation of the draft EIS (40 CFR 1501.7, 40 CFR 1508.25, 23 CFR 771.105 (a-d), 23 CFR 771.123, WAC 197-11-408). NEPA requires scoping for a supplemental EIS; however, the co-lead agencies can decide to hold an open house early in the supplemental EIS process that serves the same purpose. See also Section 411.07 and Section 411.08.

EIS Scoping is generally the first step in the public involvement process. It includes communication with regulatory agencies, people directly affected by the proposed project, and the general public.

EIS Scoping does not create problems that do not already exist. It ensures that problems and concerns that would have been raised anyway are identified early in the process. A thorough scoping offers some protection against subsequent lawsuits. During scoping, all interested parties should have an opportunity to raise issues or concerns they feel need to be considered in development of the project.

The purposes of EIS scoping are:

- To present the project purpose and need and alternatives considered so far.
- To consider unquantified environmental amenities and values in decision making, along with economic and technical issues.
- To make a diligent effort to invite and solicit comments from affected and interested citizens, businesses, and agencies.
- To identify potential environmental impacts of proposed actions and begin documenting the rationale for subsequent decisions.

The beginning of the scoping process usually consists of informal meetings or open houses. Either prior to or during these sessions, the Regional Office or Division gives information about the proposed project to affected agencies, tribes, and any other groups, organizations or individuals known to have interest. This information may include a brief description, proposed alternatives, probable environmental impacts and issues, maps, drawings, and a brief explanation of the scoping procedure.

For more information see *Scoping Guidance, Memorandum for General Counsel, NEPA Liaisons and Participants in Scoping, Executive office of the President,*

Council of Environmental Quality. April 30, 1981. This and other CEQ guidance is online at:

http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm

(a) Design the EIS Scoping Process

Contact known local citizens groups and civic leaders to get a feel for public interest. Then decide whether to scope by public meeting(s), letter, telephone, or a combination of methods.

Generally, several small meetings work better than one large meeting. Large meetings often become "events" where grandstanding substitutes for substantive comments. Normally, public scoping and agency scoping meetings are held separately because of differing areas of concern.

(b) Issue the Public Notice

Section 411.05, Section 411.07, and Section 411.08 contain detailed guidelines on the public notice requirements for NEPA EAs, NEPA/SEPA EISs, and SEPA-only EISs.

NEPA CEQ regulations (40 CFR 1501.7) require that a Notice of Intent (NOI) to prepare an EIS be published in the *Federal Register* prior to initiating scoping. The scoping notice can be included in the notice of intent if desired. A Determination of Significance and Scoping Notice form can be found in WAC 197-11-980 of the SEPA rules. A scoping notice should also be published in local newspapers in all areas affected by the project. All adjacent property owners, agencies, tribes, and others who have expressed interest in the project should be sent an individual letter. If there is potential for disproportionately high adverse impacts to low-income or minority populations, give special attention to early notification. Demographic information should indicate whether there is a need to print materials in other languages and have interpreters for public meetings.

News releases are another appropriate way to announce scoping. However, they do not constitute legal notice. Also, news media may not use them unless the project is considered newsworthy.

(c) Prepare an Information Packet

The packet should include a brief explanation of what scoping is and what procedure will be used. There should be a brief general description and map showing each proposed alternative. Known impacts and benefits of each alternative should be described.

The information should include specific issues on which comments are requested. Encourage recommendations for improvements to the proposed alternatives and point out that there is no preferred alternative.

(d) Evaluate Comments and Respond to Participants

All scoping comments received from the public and/or other agencies must be evaluated to determine the relevance of each comment. All relevant issues must be addressed in the environmental document. To assure credibility during the environmental process, all scoping comments – whether relevant or not – need to be carefully evaluated and responded to in one or more follow-up documents:

- Handouts at public meetings Comments received early in the scoping process may be listed or summarized and included in handouts at succeeding public meetings.
- Newsletters Newsletters can be used to give an early response to comments.
- Environmental documents EISs and EAs both include sections that
 describe comments from and coordination with the public and other
 agencies.

EIS Scoping comments may be listed individually, or grouped and summarized under general headings, depending on the number of comments received and the similarity of the comments.

Responses to comments may be as simple as stating that the issue will be addressed in detail in the environmental document. Comments regarding issues that will not be addressed in detail in the document should be responded to early in the process – by way of a newsletter for instance – rather than waiting for the issue to be raised again during the document circulation period.

The actual method of responding to scoping comments is not critical. What is important is that each comment is fairly evaluated and responded to. Citizens and other governmental agencies that take the time to express their interest in a project – whether their concerns, support, or opposition – need to be assured that their voices have been heard. Consider comments received by e-mail the same as those made in person or by letter.

(2) Organization of the EIS

Figure 411-1 and **Table 411-2** compare the typical organization of an EIS under NEPA and SEPA; they are not intended to include all topics covered. WSDOT EISs generally follow the NEPA format. Because EIS formats are not mandatory, agencies sometimes prepare EISs with the more reader-friendly format, presenting information regarding a particular topic in the same section.

Additional guidance concerning the organization and format of the EIS documents can be obtained from WSDOT's *Reader-Friendly Tool Kit*. WSDOT has prepared the *Reader-Friendly Tool Kit* as a guide for EIS/EA and discipline report managers, coordinators, and writers to make environmental documents easier for the public to read and understand. The kit includes specific tools for developing a EISs, EAs and discipline reports. The tool kit is available online at:



http://www.wsdot.wa.gov/environment/compliance/ReaderFriendly.htm

It is expected that by July 1, 2005 projects will implement the basic concepts of the *Reader-Friendly Tool Kit* and by January 1, 2006 all WSDOT EISs and EAs will use the reader-friendly document template, with few exceptions to be determined on a case-by-case basis after consulting with the Environmental

Services Office. Please see the tool kit at the on-line address above for more specific information.

Some examples of well-formatted environmental impact statements, environmental assessments, and other environmental documents are available at:

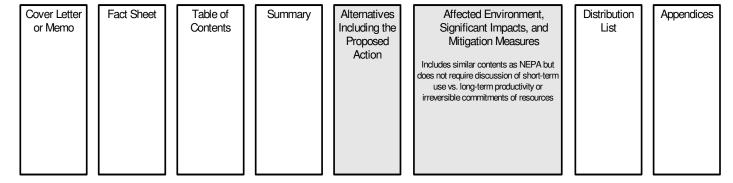
http://www.wsdot.wa.gov/environment/compliance/NEPA_SEPA.htm

Figure 411-1: Generalized Content Organization for EISs under NEPA and SEPA

Federal (NEPA)

Cover Sheet	Summar	/	Table of Contents	and	urpose of d Need for Action	Alternativ Including Propose Action	the d	Affected Environment	Environmental Consequences including (among others): Mitigation Measures Unavoidable adverse impacts Short-term Uses vs. Long-term productivity Irreversible & Irretrievable Commitment of Resources Growth-inducing impacts Cumulative Impacts	List of Preparers	Distribution List	Index	Appendices	
									Cumulative Impacts					

Washington (SEPA)



^{*} Note: The most important sections of an EIS are shaded for comparison. Note that SEPA combines the discussion of the affected environment, proposal impacts, and mitigation measures in one section.

(Source: Adapted from Diori L. Kreske, Environmental Impact Statements: A Practical Guide for Agencies, Citizens, and Consultants.)

Table 411-2: Comparison of NEPA and SEPA Elements of the Environment

SEPA (WAC 197-11-444 & 448)	NEPA (FHWA T 6640.8A)	Permits	Manual Reference
NATURAL ENVIRONMENT			
Earth Geology; Soils; Topography; Unique Physical Features; Erosion.	Construction Impacts.	Critical Areas Review.	420
Air Air Quality; Odor; Climate.	Air Quality.	Regional Air Quality Authorities (permit/concurrence, point source-emissions, traffic related-concurrence).	425
Water Surface; Runoff; Flood; Groundwater; Public Water Supply.	Water Quality, Floodplain, Water Body Modifications.	Section 10 Permit, NPDES, 401 Water Quality Certification, Floodplain Analysis, 404 Permit, USCG Section 9 Permit.	431 432 433
Plants & Animals Habitat; Eelgrass; Unique Species; Migration Routes.	Wetlands, Threatened & Endangered Species, Wildlife.	404 Permit, Section 10 Permit, ESA Section 7 consultation, HPA, Critical Areas Review, Shoreline Permit, Forest Practices Application.	436 437
Energy & Natural Resources Amount Used; Source/ Availability; Non-renewable; Conservation & Renewable Resources; Scenic Resources.	Energy, Local Short-Term vs. Long- Term Productivity, Irreversible and Irretrievable Commitment of Resources.		440 480
BUILT ENVIRONMENT			
Environmental Health Noise; Risk of Explosion; Hazardous Materials.	Noise, Hazardous Waste Sites, Construction Impacts		446 447
Land & Shoreline Use Land Use Plans/Population; Housing; Light & Glare; Aesthetics; Recreation; Historical/Cultural; Agricultural, Social Impacts, Economic Impact.	Land Use, Farmland, Coastal Barriers, Coastal Zone Impacts, Historical/Archaeological/ Cultural, Visual, Joint Development, Social Impacts, Economic Impact, Environmental Justice, Wild & Scenic Rivers, Relocation	Local land-use and shoreline permits.	450- 459
Transportation Transportation Systems; Vehicular Traffic; Water, Rail & Air Traffic; Parking; Movement of People or Goods; Traffic Hazards.			460
Public Services & Utilities Fire; Police; Schools; Parks/ Recreational; Maintenance; Communications; Water/ Stormwater; Sewer/Solid Waste; Other.		Local utility approval.	470
Secondary and Cumulative Impacts	Cumulative Impacts		480

(3) Elements of the Environment

Table 411-2 compares the elements of the environment to be considered under NEPA, SEPA, and other state and federal legislation, with references to sections of this manual where guidance on analyzing each type of impact can be found. See also **Appendix F** for a complete list of environmental permits and approvals required for transportation projects.

In addition to NEPA requirements, Section 4(f) of the Department of Transportation Act applies to projects affecting publicly owned parks, recreation areas, wildlife and waterfowl refuges, and historic sites. Section 6(f) of the Land and Water Conservation Funds Act applies to conversion of outdoor recreation property acquired or developed with grant assistance from an Interagency Committee for Outdoor Recreation. For guidance on preparing Section 4(f) and Section 6(f) evaluations, see Section 411.12 and Section 455.05.

(4) Purpose and Need Statement

The purpose and need section is in many ways the most important section of an environmental impact statement. It explains to the public and decision makers that the expenditure of funds is necessary and worthwhile and that the priority the project is being given relative to other needed highway projects is warranted. In addition, although significant environmental impacts may result from the project, the purpose and need section should justify why impacts are acceptable based on the project's importance. It demonstrates problems that exist or will exist if a project is not implemented, and drives the process for alternative consideration, analysis, and selection of the preferred alternative. It should clearly demonstrate that a "need" exists and should define the "need" in terms understandable to the general public.

Various elements of purpose and need can be explored for any given project, including such concerns as mobility, safety, or economic development.

(5) Alternatives to the Proposal

The EIS includes a comparison of impacts for different alternatives. The DEIS must evaluate a range of alternatives to the action and discuss why other alternatives that may have been considered were eliminated from detailed study.

SEPA rules require that reasonable alternatives include actions that could feasibly attain or approximate the objectives of a proposal, but at a lower environmental cost or decreased level of environmental degradation.

(a) Typical Alternatives

Alternatives normally include the following:

• The no-action alternative, including routine maintenance and repair (such as safety improvements) that are part of routine operation of an existing roadway, and continued operation of the existing roadway system. This alternative does not include improvements that would increase capacity through widening an existing structure or roadway segment, or change the footprint of the structure or roadway prism. The consequences of the no-action alternative must be considered. The no-action alternative establishes a baseline condition for

- comparison with the other alternatives, which can be considered in order to fulfill the purpose of the project.
- Alternatives to improve the existing facility, including resurfacing, restoration, and rehabilitation (3-R) plus reconstruction (4-R) types of activities, high occupancy vehicle (HOV) lanes, park and ride facilities, and other minor improvements.
- Multimodal alternatives, including public transit, rail, water, and air transportation, or other modes of transportation dictated by the characteristics of the study area. These may be under the jurisdiction of other lead agencies and require early coordination.
- Alternative routes and/or locations.
- A combination of the above alternatives.

(b) NEPA Criteria

Identifying and studying alternatives to a proposal is the key to the NEPA process objective of finding transportation solutions that help preserve and protect the value of environmental and community resources. Evaluation of alternatives should present the proposed action and all the alternatives in comparative form, to define the issues and provide a clear basis for choice among the options. CEQ implementing regulations (40 CFR 1502.14) call the alternatives analysis section the "heart of the EIS," and require that agencies shall:

- Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives that were eliminated from detailed study, briefly discuss the reasons for eliminating them.
- Devote substantial treatment to each alternative considered in detail, including the proposed action, so reviewers may evaluate their comparative merits.
- Include reasonable alternatives not within the jurisdiction of the lead agency.
- Include the alternative of no action.
- Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft EIS and identify such alternative in the final EIS unless another law prohibits the expression of such a preference.
- Include appropriate mitigation measures not already included in the proposed action or alternatives.

For FHWA guidance on alternatives, see:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then NEPA: Project Development, then Transportation Decisionmaking, then Development and Evaluation of Alternatives.

Or by direct link:



http://www.fhwa.dot.gov/environment/alts.htm

(c) SEPA Criteria

The SEPA Rules (WAC 197-11-440(5)) require the EIS to describe and present the proposal (or preferred alternative, if one or more exist) and alternative courses of action. The rules include the following guidance:

- Reasonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.
- The word "reasonable" is intended to limit the number and range of alternatives, as well as the amount of detailed analysis for each alternative.
- The "no-action" alternative shall be evaluated and compared to other alternatives.
- Reasonable alternatives may be those over which an agency with jurisdiction has authority to control impacts either directly, or indirectly through requirement of mitigation measures.

(6) Affected Environment

CEQ regulations (40 CFR 1502.15) require EISs to succinctly describe the environment of the area(s) to be affected by the alternatives under consideration. Descriptions should be no longer than is necessary for the reader to understand the relative impacts of the alternatives. Data and analysis should be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced.

(7) Analysis of Impacts

Under CEQ regulations (CFR 1502.16) the EIS discussion of impacts forms the scientific and analytical basis for comparisons of alternatives. It consolidates the results of discipline reports (see **Section 411.10**) prepared by Regional Offices and Divisions.

The EIS must discuss impacts on the natural environment (air, water, land). As appropriate, the EIS must also discuss impacts on urban quality, historical and cultural resources, and the design of the built environment, including reuse and conservation potential of various alternatives and mitigation measures. For detailed guidance, see Chapter 420 through Chapter 470.

Impacts must be discussed for each alternative, and summarized in comparing the relative impacts of the alternatives including the proposal (CEQ 1502.14). For each alternative, the energy, natural and depletable resource requirements and conservation potential must be discussed.

The EIS should discuss in general terms the relationship of local short-term impacts and use of resources, and the maintenance and enhancement of long-term productivity, and the irreversible and irretrievable commitment of resources resulting from the proposed action. For guidance on this discussion, see **Section 480.05.**

Both NEPA and SEPA require analysis of direct, indirect, and cumulative impacts. For example, a direct impact would be that a new highway will result in filling a wetland; an indirect impact would be that the highway will encourage

increased development because of improved access; a cumulative impact would be that increased runoff and contaminants from the highway would be added to the volume and level of runoff from all other feasible and future actions. For guidance on analysis of cumulative impacts, see Section 480.05.

Impacts may be temporary, such as the short-term impacts associated with the Construction phase of a project, or permanent, such as the long-term impact of increasing runoff and contamination from a widened highway. A summary of significant adverse impacts remaining after mitigation should follow the discussion of all impacts.

(8) Mitigation of Adverse Impacts

The EIS also must discuss the proposed means to mitigate the identified adverse environmental impacts. Under CEQ regulations (40 CFR 1508.20), mitigation may include:

- Avoiding the impact altogether.
- Minimizing impacts by limiting the scale of the action.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations.
- Compensating for the impact by replacing or providing substitute resources or environments.

For FHWA guidance on mitigation, see:



Click on FHWA Programs, then Environment, then NEPA: Project Development Process, then Transportation Decisionmaking, then Mitigation and Enhancement of the Environment.

Or by direct link:



http://www.fhwa.dot.gov/environment/mitig2.htm

(9) Documenting Environmental Benefits

Typically, environmental documents do a great job documenting adverse effects associated with a project. Most documents don't do a good job documenting WSDOT's efforts to avoid or minimize negative environmental effects as part of project development. It's important to document both positive and negative effects that may be caused by a project. Why would WSDOT undertake a project that only had negative effects? If benefits are not discussed in the document, readers don't get a full and accurate picture of the projects net effects.

Many benefits may result from a proposed project. Perhaps the project will decrease congestion. Decreased congestion may improve air quality and travel time. Maybe the project improves water quality by upgrading the existing stormwater system or providing treatment where it is currently not provided. If possible, engineers or the environmental lead should keep a list of adverse effects that were avoided or minimized as part of project development. As the team

develops the EIS/EA and discipline reports, make sure to document benefits associated with the project and clearly present them in the EIS/EA.

411.10 Discipline Reports

Discipline reports are prepared by Regional Offices and Divisions to document environmental studies and investigations. The reports form the basis for environmental documents such as EAs, EISs, and Section 4(f) evaluations. The reports describe the affected environment and detail the probable environmental impacts of project alternatives. A reasonable range of alternatives identified by the project manager and IDT need to be studied in the same level of detail.

Not all elements of the environment will require a full Discipline Report. For elements where there will be no impact, this finding should be documented in the form of a technical memo. For guidance on how to determine whether a Discipline Report is required or whether a technical memo will suffice, see **Chapter 420** through **Chapter 470**, in the Technical Guidance section under Discipline Reports.

The technical portion of the discipline report provides evidence that all major potential impacts have been considered, presents information to support findings of significant impacts, and demonstrates clearly that the study is in compliance with the requirements of environmental law. Reports should only present factual data or expert opinion that is defensible in court.

Once the report is written, the expert develops a summary that incorporates all the key areas pertinent to the discipline study. These summaries become the basic components of the environmental document. The summary shall be written for the decision makers(s) and the average citizen rather than for experts in the field or for scientist.

Where a discipline report serves as the basis for a section of the EIS, it should be incorporated by reference in that section, in addition to being referenced in the bibliography. As required by WAC 197-11-635, the reports are individually identified by author, date, and subject matter; their location is identified; they are summarized in the EIS; and they are made available for public review along with the EIS. Include the statement, "This report is incorporated herein by reference."

WSDOT has prepared discipline report checklists for most elements of the environment. See exhibits in **Chapter 420** through **Chapter 470**. For elements where there is no discipline report, general guidance is given in those chapters.

(1) Data Collection, Inventory, and Evaluation

The IDT develops an inventory of social, economic, environmental, and engineering data. The information is used to define the affected environment, predict and analyze impacts, help select the least environmentally damaging alternative, serve as a database for future environmental documents, and provide information to other agencies, interest groups, and individuals. **Chapter 420** through **Chapter 480** and FHWA Technical Advisory T 6640.8A give detailed guidance on the type of information, depth of study, and procedures used in collection, inventory, and evaluation of data required for environmental documents. The FHWA Technical Advisory is online at:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

Relevant information can come from any source inside or outside WSDOT. It can be published data, project inventories, or data from field observations. In some cases, new data must be obtained by on-site monitoring, sampling, or measuring ambient conditions. Data gathering from local agencies should be coordinated with the project manager so the Region can consolidate requests.

Other data sources include WSDOT's GIS Workbench and previously published EISs, which can be accessed as described below.

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. For information on how to access the GIS Workbench, see:



http://www.wsdot.wa.gov/environment/envinfo/default.htm

(2)Report Outline

After data has been collected, inventories compiled, and analyses completed, each discipline prepares a formal discipline report.

All discipline reports are developed in a similar format so they can be easily adapted to the needs of the environmental document. Generally, discipline reports contain the following:

- Summary of findings, impact conclusions, and mitigation recommendations.
- Background discussion on why the particular expertise area is critical to this project, such as what the resource is, and its location.
- Study methodology.
- Coordination with other groups or agencies.
- Affected environment (existing conditions) particular to the resource.
- Predicted impacts of each alternative.
- Mitigation recommended for construction and operational impacts.
- Indirect impacts (when appropriate).
- Bibliography.

Each of the above topics should be addressed, but when information is brief, they may be combined.

Before developing the report, the EIS or EA outline should also be reviewed, so significant details required for the environmental document are not overlooked.

(3) Report Summary

The report summary presents significant findings and recommendations in non-technical terms. The summary should be suitable for incorporation into the environmental document and for presentation at public hearings or use by management and policy groups in decision making.

The information contained in the environmental document is the responsibility of the expert who developed the report and not the environmental document writer. Therefore, good summaries that can be taken directly from discipline reports to the environmental document are important.

(4) Draft Report

Prepare the draft report in accordance with the time schedule and scope of detail identified by the project manager.

Draft discipline reports are normally reviewed by several independent "discipline specialists" other than the primary author of the report. The purpose of this review is to ensure an independent evaluation of the technical accuracy and completeness of the draft report. The ESO Compliance Branch maintains an on-call list of discipline specialists who are available to conduct an independent review. For assistance in conducting an independent review of discipline reports, contact the Compliance Branch.

(5) Review of Discipline Reports

The project manager and IDT review all discipline reports and comments by discipline specialists. They can use the review template (Exhibit 411-7) to electronically compile and sort comments and track how each comment is addressed. Using this tool has the advantages of:

- Encouraging the use of line numbers in draft documents to facilitate review and response.
- Saving time, since the project team does not have to guess at the level of importance of each comment.
- Providing a concise way to document the comments and how they were addressed.
- Giving feedback to reviewers in the form of a complete summary of comments and how they were addressed.
- Encouraging consistency with WSDOT's Reader-Friendly Document Toolkit (see Section 411.02).

Based on their review of the discipline reports, the project manager and IDT can discuss tradeoffs among alternatives and develop a preliminary recommendation.

The ESO encourages project managers to ask reviewers to use a standard template such as the one in **Exhibit 411-7** to record and prioritize comments in a consistent format. Report reviewers can use the template to succinctly summarize each comment and rank its importance. The template is online via the ESO Compliance Branch web site:



http://www.wsdot.wa.gov/environment/compliance/NEPA SEPA.htm

Submit the draft report to the project manager requesting his/her review to confirm that engineering detail in the report is correct and the Region accepts any proposed mitigation. This submittal may be informal but should be documented.

(6) Final Discipline Report

Prepare the final report, incorporating the project manager or Region's comments. The report summary should be reevaluated against the needs of the environmental document outline so adequate and correct information is included in the document. The completed report is formally sent to the project manager. Copies should also be sent to the environmental document writer in the Region or Environmental Services Office.

(7) Public Record

Most discipline reports become public record and part of an Administrative Record if one is prepared. Reports prepared for areas of high controversy or significant impact may be incorporated into an environmental document in their entirety as an appendix. All reports are kept in the project record for backup detail and future reference. Certain reports, or aspects of reports, may not be subject to public record or disclosure. Pursuant to Section 304 of the National Historic Preservation Act, implemented through CFR 800.11(c), a "...public official receiving grant assistance pursuant to the Act, after consultation with the Secretary, shall withhold from public disclosure information about the location, character, or ownership of a historic property when disclosure may cause a significant invasion of privacy; risk harm to the historic property; or impede the use of a traditional religious site by practitioners." (See Chapter 456.)

411.11 WSDOT Internal Documents

This section describes three types of internal documentation efforts that will assist project teams in managing and record-keeping:

- Study Plan
- Preliminary and Final Recommendations
- Administrative Record

(1) WSDOT Study Plan

The Study Plan is an outline, or "road map," of the environmental process to be followed during the development of a project that requires an EIS. It describes the scope of the proposed project, alternatives that would satisfy the goals of the proposed action, and environmental issues to be studied, and it includes a Public Involvement Plan. A Sample Public Involvement Plan is shown in Exhibit 410-1.

Preparation of the Study Plan occurs in two phases. Immediately after the IDT has identified the project alternatives and environmental issues, the project manager prepares a Draft Study Plan. This Draft Study Plan is used during presentation of the proposed project to affected or interested resource agencies and environmental discipline experts. The project manager then revises the Draft Study Plan to include agency and/or discipline expert concerns, develops personnel requirements, and prepares the Final Study Plan for approval.

An example Study Plan, along with its Public Involvement Plan, can be found on the following WSDOT web site:

http://www.wsdot.wa.gov/environment/compliance/comp examples.htm

(a) Draft Study Plan

The Draft Study Plan should be prepared as soon as possible after the IDT has identified the project alternatives and environmental issues to be studied in the DEIS. The Draft Study Plan should include the following information:

- 1. Title sheet
 - a. Project title
 - b. Date
 - c. Approval date and signature of:
 - Team chairperson
 - Agency administrator
- 2. Vicinity map
- 3. Need and purpose
 - a. Need (known deficiencies)
 - b. History (if applicable)
 - c. Purpose of project
 - d. How proposed project will satisfy the need
- 4. Scope of work
 - a. Interdisciplinary approach (brief description of how the team will use interdisciplinary information to reach decisions)
 - b. Alternatives
 - c. Public involvement summary (to date)
 - d. Brief description of areas of primary importance and significant controversy
- 5. List of co-lead and cooperating agencies
- 6. Dates and locations
 - a. List of studies to be prepared and disciplines involved
 - b. IDT members, project manager, and IDT chairperson
 - c. Education and experience of all expertise in format required for EIS
- 7. Project schedule milestones (Including NEPA Negotiated Timeframes)
- 8. Date and location of scoping meetings
- 9. Appendix: Public involvement plan

As with any draft document, the Draft Study Plan is subject to revision. The Draft Study Plan is a statement of the best available information at this stage of project development.

(b) Final Study Plan

The Final Study Plan incorporates feedback from resource agencies and discipline experts. It defines the scope of the project, alternatives to be

studied in the DEIS, the scope and level of analysis to be conducted for each discipline study, and the public involvement plan. The submittal of the Final Study Plan occurs just after the IDT gives its Preliminary Recommendation on which alternatives to study in the EIS and usually prior preparing discipline studies. The IDT and the Regional Administrator must approve the Final Study Plan. These approvals should be obtained before the discipline reports are finalized.

(2) Preliminary and Final Recommendations

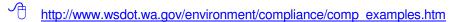
Preliminary and final recommendations are formal statements from the project manager and IDT to the Regional Administrator and <u>WSDOT Director of Environmental and Engineering Programs.</u> They form the basis for the DEIS and FEIS.

The project manager prepares the preliminary and final recommendations after discussion with the IDT. If the IDT cannot agree on certain items, this should be documented in the preliminary and final recommendation. A minority report may be prepared.

The preliminary and final recommendations are submitted to the Regional Administrator for concurrence. The Regional Administrator then submits the recommendation to the Environmental Services Office (ESO) for review and approval.

(a) Preliminary Recommendation

The preliminary recommendation is a concise description of significant impacts and alternatives to be evaluated in the DEIS. Reviewing the preliminary recommendation offers regional and HQ management the opportunity to make revisions before the DEIS is prepared. Proposals or concepts that may appear logical to the IDT or individual experts may not fit well from a larger perspective. Once approved, the preliminary recommendation forms the basis for preparation of the DEIS. An example is available online at the following WSDOT web site:



The preliminary recommendation should be prepared as soon as project impacts are known. Normally, this occurs after the preliminary discipline reports have been received and evaluated, and before preparing the preliminary DEIS. The IDT considers all environmental and design information and coordinates with the appropriate engineering sections in selecting alternatives to be studied in the DEIS.

A late preliminary recommendation can result in wasted time, effort, and money if a DEIS needs to be revised; or in unwise or costly commitments that could have been avoided.

The preliminary recommendation includes:

- Description of alternatives to be considered in the DEIS.
- Preferred alternative if one exists, and why it was chosen.
- Significant impacts and possible mitigation.

- Controversial areas and coordination proposed to resolve them.
- Any changes in the proposal as originally defined in the study plan, and why changes were made.

(b) Final Recommendation

The project manager and IDT review all comments received on the DEIS and develop a final recommendation, which is a concise description of the preferred alternative, significant impacts, and mitigations to be covered in the FEIS. In general, two to four pages are sufficient for a final recommendation. Additional pages may be required for complex or controversial projects.

The final recommendation offers regional and ESO management the opportunity to review the recommendation after all comments have been considered and to make revisions before the FEIS is prepared. Once approved, the final recommendation forms the basis for preparation of the FEIS.

The Regional Office reviews comments received at the public hearing(s) and on the DEIS. The Interdisciplinary Team and the project manager prepare a final recommendation after evaluating these comments.

The final recommendation includes:

- Description of the preferred alternative and why it was selected.
- Significant adverse impacts and proposed mitigation.
- Monitoring or enforcement programs required to ensure implementation of mitigation measures.

(3) Administrative Record

The administrative record is a formal statement of the basis for a project decision. Its primary use is to document the reason for the project decision. It reflects the project history, environmental evaluation, and prior decision making on the project. The administrative record should also include criticism and responses to agency and public comments to document that opposing views were considered.

(a) When to Prepare

All projects must be documented to support key decisions. A formal administrative record must be prepared for projects requiring an EIS where substantial controversy exists, and may be prepared for other projects. Project files on all projects should be kept in an orderly manner throughout the life of the project, whether or not an administrative record is prepared. Also, as decisions are made on the project, they should be recorded and filed.

(b) Administrative Record Contents

An administrative record should contain all federal, state, regional, or local actions. These include corridor approval, corridor adoption, design approval, other Transportation Commission actions, and Region-approved transportation master plans or programs. It may also contain other related material.

The administrative record should contain the following elements, as applicable, in chronological order:

- Table of contents
- Project prospectus
- Environmental Classification (ECS)
- Regional transportation plans or studies
- Route studies
- Study plan
- Notice of intent
- Minutes of scoping meeting(s)
- Each Interdisciplinary Team meeting minutes and recommendations
- Draft and final recommendation
- Agency meeting minutes and phone call summaries
- Comments from public open houses
- Public hearing transcript
- Letters from agencies or the public and responses to them
- Interoffice communications relating to project development
- Discipline reports
- Draft and final EIS
- Copy of all references cited in the DEIS and FEIS
- Official notices
- Record of decision
- Corridor, design, and access plan approvals
- Affidavit of publication of notice of action
- Other relevant evidence such as local zoning or planning reports, government studies, questionnaires, or university studies.

The administrative record need not include every item in the project file. Generally, items that do not relate to a major project decision, it should not be included. The Attorney General's office should be consulted during the preparation process.

411.12 Section 4(f) and Section 106 Documents and Procedures

(1) Section 4(f) Evaluation

When a project involves Title 23 federal funding and requires the use of any publicly owned land from a park, recreation area, wildlife or waterfowl refuge, or a cultural resource site on or eligible for the National Register of Historical Places, a Section 4(f) evaluation must be included in a separate section of the EA or EIS. A separate evaluation is prepared for each location within the project where the use of Section 4(f) property is being considered. For details, see **Section 455.05**. **Exhibit 455-1** is the Discipline Report checklist for 4(f) evaluations; **Exhibit 455-2** is an evaluation outline.

The DEIS/Section 4(f) evaluation report must be circulated to the Secretary of the U.S. Department of the Interior for a 45-day review and comment period. When appropriate, the U.S. Secretary of Housing and Urban Development and the Secretary of Agriculture are also given an opportunity to review the proposal. When a Section 4(f) property is identified after the DEIS and/or FEIS has been processed, a separate Section 4(f) evaluation is prepared, circulated for comment, and finalized.

(a) Contents (Draft & Final)

The Section 4(f) document should include the sections listed below.

- Introduction Include the following statement: "Federal regulations prohibit the FHWA from using land from a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or from a significant historical site. An exception occurs if the United States Secretary of Transportation makes a determination that (1) there is no feasible and prudent alternative to the use of such land; and (2) the proposed action includes all possible planning to minimize harm to the property." Feasible is defined as being possible to construct using sound engineering practices. It disregards limitations and cost. Prudent is defined as not involving extraordinary cost or community disruption.
- Description of Action.
- Description of 4(f) Resource with figure(s) showing the entire resource.
- Impacts on the Resource resulting from construction and/or operation.
- Avoidance Alternatives can refer to and incorporate discussion from EIS.
- Measures to Mitigate Harm Detailed discussions of mitigation measures in the EIS or EA may be referenced and appropriately summarized, rather than repeated.
- Record of Coordination Include information on all agencies contacted. As applicable, include: Department of Interior, Regional Office of HUD, USDA, Forest Supervisor of the affected National Forest, SHPO, local agency with jurisdiction. Include the National Park Service position on the land transfer if Section 6(f) land is impacted.
- Conclusion (FEIS only) The conclusion that there are no feasible and prudent alternatives is not addressed at the draft Section 4(f) evaluation stage. Such conclusion is made only after the draft Section 4(f) evaluation has been circulated and coordinated and any identified issues adequately evaluated. With the FEIS include this concluding statement: "Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the [identify Section 4(f) property] and the proposed action includes all possible planning to minimize harm to the [Section 4(f) property]

resulting from such use." (Source: FHWA Technical Advisory T 6640.8A.)

(b) Section 4(f) Inventory Questions

Avoiding impacts to possible 4(f) resources is a prime concern as alternatives are defined and design decisions are made. To document an inventory of existing recreational resources within the study area, request the owner agency for information on the areas of interest below.

- Provide a detailed map or drawing of sufficient scale to identify the resources on your property.
- What is the size (in acres or square feet) and location (maps, sketches) of the resources?
- What is the type or nature of the property (e.g., recreation, boat launch, historic, passive recreation)?
- What is the function of or what are available activities on the property (e.g., swimming, golfing, baseball, picnic table)?
- Describe and locate all existing and planned facilities on your map/sketch (tennis courts, baseball diamonds, picnic table, restroom, etc.). Are the parcels part of any existing or proposed State Recreation Master Plan?
- What is the access (pedestrian and vehicles), and usage (e.g., approximate number of users/visitors) in a time period of the owner's choice?
- Is there a relationship to other similarly used public lands in the vicinity?
- Are there any applicable clauses affecting ownership, such as lease, easement, covenants, restrictions or conditions, including forfeiture?
- Are there any unusual characteristics (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property?
- Has the acquisition of land or any improvements to the resource used funds from the Land and Water Conservation Fund Act of 1965, administered by the Interagency Committee for Outdoor Recreation (IAC)?

(c) Nationwide 4(f) Programmatic Evaluations

The following categories of impact on 4(f) resources can use a programmatic 4(f) evaluation if certain requirements are met:

- Minor involvement with public parks, recreation lands, and wildlife and waterfowl refuges.
- Minor involvement with historic sites.
- Use of historic bridges.
- Independent bikeway or walkway construction projects.

For details, see Section 455.05.

(d) Final Section 4(f) Evaluation

When the selected alternative involves the use of Section 4(f) property, a Section 4(f) evaluation is included as a separate section in the FEIS. Ensure that the proper procedures are followed as stated in the Memorandum of Agreement with the Council on Historic Preservation. See Section 456.04. The agreement is online via the ESO Compliance Branch web site:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

(e) Circulation of Section 4(f) Evaluations

Normally, Section 4(f) evaluations are included in an EA or EIS and are circulated with the environmental document. If an EA is involved, the draft 4(f) evaluation is combined and issued with the EA. After the environmental hearing and comment period, the final 4(f) evaluation is combined and issued with the FONSI as a public document.

If a Section 4(f) evaluation is processed separately, it should be sent to WSDOT's Environmental Services Office. The Environmental Services Office reviews the evaluation. FHWA approval to print is demonstrated by its signature on the title page, possibly with a short list of minor changes to make prior to printing. The region should distribute the document to officials having jurisdiction over the Section 4(f) property, and to the U.S. Department of Housing and Urban Development and the U.S. Department of Agriculture when these agencies have an interest in or jurisdiction over the affected Section 4(f) resource (23 CFR 771.135(i)). The Section 4(f) evaluation report, along with any supporting expertise reports, must be circulated to the Secretary of the U.S. Department of the Interior for a 45-day review and comment period.

(2) Section 106 – Historic and Cultural Resources

Section 106 of the Historic Properties Act applies to transportation projects affecting a historic property listed on or eligible for listing on the National Historic Register. Special provisions apply to the use of historic bridges for highway projects. Under the Archaeological Resources Protection Act, projects that involve the acquisition of right of way or excavation within existing right of way may need to be surveyed and inventoried to determine if cultural resources exist. See Section 456.05 for details.

Section 106 property may also meet the requirements for a Section 4(f) evaluation if it has been determined that the proposed project will have an adverse effect on the site. In this case, one document, the Section 106 Preliminary Case Report and Draft Section 4(f) evaluation, will satisfy the requirements of both laws. For details, see the *Federal Register*, Vol. 64, No. 95, May 18, 1999 – Rules and Regulations for Part 800, Protection of Historic Properties for more information.

The need for protection of a Section 106 historic resource is documented by preparing a Determination of Eligibility and Determination of Effect. Both documents are processed through the State Historic Preservation Officer

(SHPO) for concurrence. Section 106 requires consultation with affected tribes at the beginning of the project and throughout the project.

411.13 Re-Evaluations and Supplemental Documents

NEPA provides for the re-evaluation of final environmental documents based on the criteria outlined below. WSDOT or FHWA can initiate a NEPA re-evaluation. FHWA will likely re-evaluate the environmental documentation at key points of the project development: Final Design, Right of Way Acquisition, and Construction. The FHWA Area Engineer may make an informal inquiry with a note to the project file or request that the project office complete a re-evaluation form.

For regulatory guidance, see 23 CFR 771.129–130, FHWA Technical Advisory T 6640.8A, Sections XI and XII, and WAC 197-11-600(4), 620, 625.

(1) Re-Evaluations

For NEPA implementing regulations on project reevaluations, see 23 CFR 771.129.

(a) When is a NEPA Re-Evaluation Is Required?

A NEPA reevaluation is required when any one of the following conditions exist:

- There is a substantial change in project scope or proposed action and it is uncertain if a supplemental environmental document is required. Examples include:
 - Added access that will likely require at a minimum a review of the traffic, air quality, and noise impacts.
 - Shifts in the alignment or location of the facility.
- When any change in laws or regulations (federal, state, or local) occurs where the protected resources are impacted by the project (such as listing a new species under ESA).
- Major steps to advance the project (such as approval of final design, approval to acquire a substantial portion of the right of way, or approval of PS&E) have not occurred within three years from a ROD, FONSI, or issuance of the environmental document. Factors that may contribute to the need for a reevaluation include:
 - Aged traffic analysis--A full analysis may not be required if it can be demonstrated that traffic data has not substantially changed.
 - Age of wetland delineation or other natural area analysis is older than three years.
- An acceptable FEIS has not been submitted to FHWA within three years from the date of DEIS circulation (23 CFR 771.129(b)).

(b) How are NEPA Re-evaluations Documented?

A reevaluation can be as simple as a note to FHWA's project files. Or it may include the completed NEPA re-evaluation form with supporting documentation. However, a reevaluation is not a supplemental environmental document so

detailed studies and discipline reports should not be done unless the FHWA Area Engineer requests that a supplemental environmental document be prepared. At most, technical memorandums should be sufficient to establish whether further studies or environmental documentation is needed.

Written re-evaluations usually begin with use of WSDOT's Reevaluation/Consultation Form (See Exhibit 411-8). The answers to the questions should be brief and to the point. A short explanation, two to three sentences, should only be provided when the check box answer to the question is yes. Any additional information required to explain changes in environmental impacts or to support a conclusion should be attached to this form. An optional method is to combine the form and any supplemental information into a single document.

(c) Federal Review and Approval

The Regional Office forwards the re-evaluation for review and approval to the same federal office that approved the original EIS. If, after reviewing the written re-evaluation, the FHWA or other federal lead agency concludes that a supplement to the DEIS or a new DEIS is not required, the decision should be appropriately documented and included in the project file. If the next major step in the process is preparation of a FEIS, the FEIS may be used to document the decision. The conclusions reached and any supporting information should be briefly summarized in the summary section of the FEIS. Public involvement is not part of the re-evaluation process.

(d) SEPA Reevaluation Procedures

If changes occur to a project or its surroundings or if potentially significant new or increased adverse environmental impacts are identified during other phases of project development, the approved document or exemption designation must be reevaluated. SEPA has no specific requirements for reevaluation, but the reevaluation should be accomplished in a manner similar to that described for NEPA projects. The Regional Office determines if the approved environmental documentation or exemption designation is still valid.

(2) Supplemental Environmental Documents

The FHWA Area Engineer will determine when a NEPA supplemental document is required. Supplemental documents are generally required when there is a substantial change in the project scope or project's selected alternative, when a new alternative outside the scope of the ones considered in the original analysis is being considered, or when impacts/mitigation requirements have substantially changed since issuance of the documents.

For NEPA projects, supplemental documentation may be a supplemental DEIS, a new DEIS, the addition of new or additional information in a FEIS, or an EA (23 CFR 771.130 and CEQ 40 CFR 1502.9). For SEPA projects, a supplemental EIS, (SEIS) or an addendum to the DEIS or FEIS may be required (WAC 197-11-620).

(a) Contents

There is no required format for a NEPA SEIS, however the FHWA Technical Advisory T 6640.8A on pages 49 and 50 directs that following information should be supplied:

- Sufficient information to briefly describe the proposed action.
- The reason why the SEIS is being prepared.
- Status of previous DEIS or FEIS.
- Only address changes that required the SEIS to be written and new information that was not available.
- Reference and summarize previous EIS as appropriate.
- Update status of compliance with NEPA and the results of any reevaluations.

(b) Review and Distribution

Supplemental environmental impact statements shall be reviewed and distributed in the same manner as DEISs and FEISs. Scoping is not required for NEPA SEIS documents. Scoping is optional under SEPA.

WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2.**

411.14 Exhibits

Exhibit 411-1 - NEPA/SEPA Process Flowcharts.

Exhibit 411-2 – Protocol for WSDOT Approval of Environmental Documentation.

Exhibit 411-3 – Environmental Assessment Outline.

Exhibit 411-4 – SEPA Adoption of Existing Environmental Document for a DNS or DS.

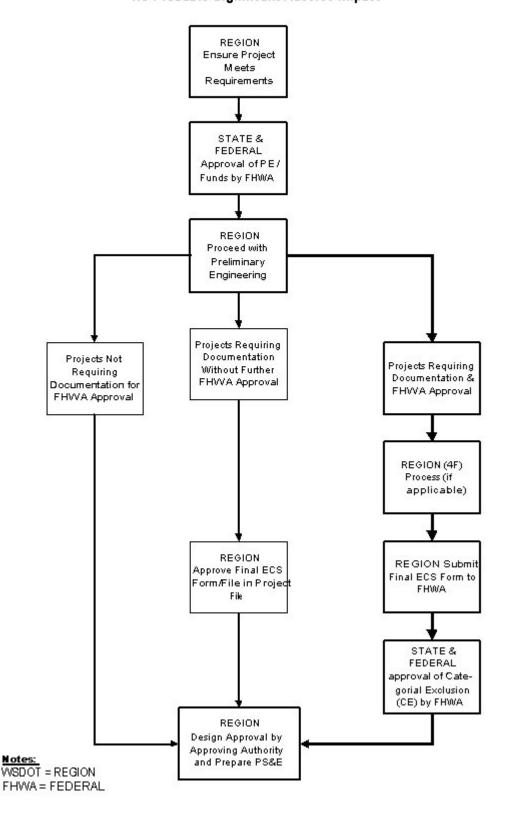
Exhibit 411-5 – Public Notice and DNS (SEPA).

Exhibit 411-6 – Sample Notice of Action Taken by WSDOT (SEPA).

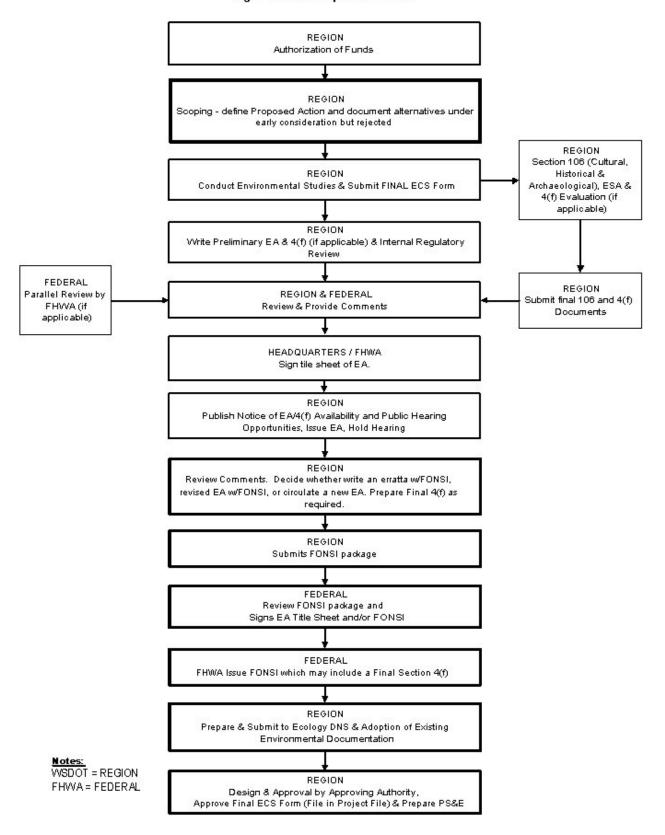
Exhibit 411-7 – Template for Coordinated Review of Discipline Reports.

Exhibit 411-8 – Sample Environmental Reevaluation/Consultation Form.

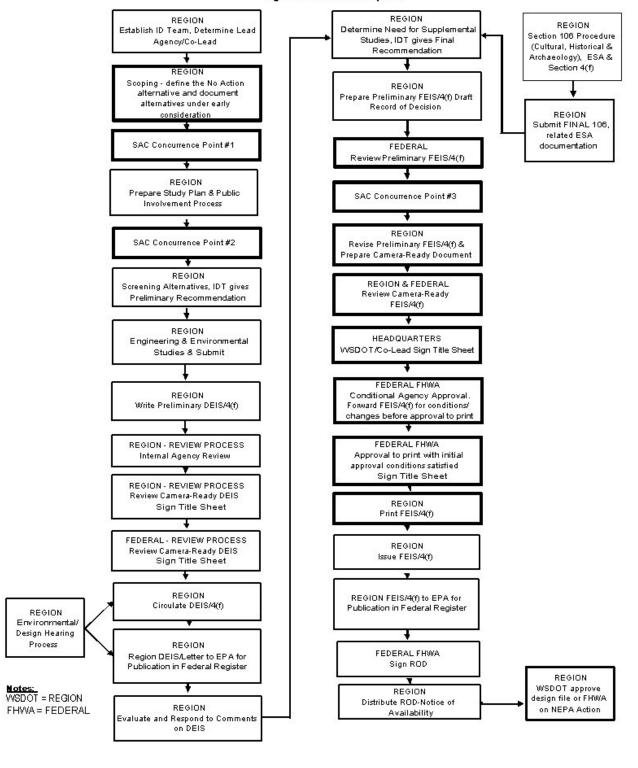
(a) Class II Projects Categorical Exclusions No Probable Significant Adverse Impact



(b) Class III Projects Environmental Assessment Required Significance of Impact Unknown



(c) Class I Projects Environmental Impact Statement Required Significant Adverse Impacts



Protocol for WSDOT Approval of Environmental Documentation

May 2005

Introduction

These instructions are provided on the process for obtaining Formal Signature Approval from the Director of Environmental Services for the following documents.

- NEPA EA
- NEPA or SEPA DEIS
- NEPA or SEPA FEIS
- NEPA or SEPA Supplemental DEIS or FEIS

Included are 4(f) and Environmental Justice documentation. The Formal Signature Approval process is outlined below. These instructions include both the <u>Pre Briefing</u> and <u>Formal Signature</u> Briefing.

Steps to Obtain Approval

Establish Environmental Services NEA Contact Person

Each NEPA EA and SEPA or NEPA EIS is assigned a contact person in the Compliance Branch of the Environmental Services Office (referred to as "NEPA Contact"). Your NEPA Contact will assist you completing the steps to obtain approval

2. Schedule Pre-Briefing and Formal Signature Briefing with Environmental Performance Program Point of Contact

Schedule the Pre-Briefing and Formal Signature Briefing with your NEPA Contact. (See attachment No. 1)

3. Obtain needed local government document signatures

Prior to requesting approval by the Director of Environmental Services the project must obtain any required local agency signature approval of the document.

4. Produce "camera ready" final document

A final camera-ready document is needed for the Pre-Briefing and Formal Signature briefing to occur.

Pre-Briefing

5. Pre-Briefing

A Pre-Briefing briefing is required with your NEPA Contact (POC). The intent of the Pre-Briefing is to ensure all necessary information will be available and presented at the Formal Signature Briefing. This will help ensure a successful Formal Signature Briefing.

When should the Pre-Briefing occur?

The Pre-Briefing should occur 2-4 weeks prior to the Formal Signature Briefing. This will allow time for any necessary document modifications. The Pre-Briefing should be considered a "dry run" of the Formal Signature Briefing.

What materials should the Pre-Briefing include?

The Pre-Briefing meeting will focus on the document itself. The document needs to be "camera-ready" (i.e. have all graphics and text in the final format ready for printing and release to the public). Do not use maps, charts, or graphs that will not be available to the general public. We will primarily work from the environmental document at this briefing. It is helpful to tab document pages that will be referred to at this briefing.

Who should attend the Pre-Briefing?

- Necessary Region/Modal project staff and consultants
- Highways and Local Programs representative for local projects
- Environmental Services NEPA Contact

How much time should we plan for?

Meeting time for the Pre-Briefing will vary depending on the complexity of the project. A minimum of 90 minutes is normally required. More time may be required for complex or controversial projects.

Pre-Briefing meeting agenda

Please see Attachment 2 to this paper for the standard Pre-Briefing agenda that needs to be followed.

6. Make any changes identified as being needed at the Pre-Briefing

The project schedule should provide adequate time between the Pre-Briefing and the Formal Signature Briefing to make any needed document changes identified at the Pre-Briefing.

Formal Signature Briefing

7. Formal Signature Briefing

How much time should we plan for?

Meeting time for the Formal Signature Briefing will vary depending on the complexity of the project. A minimum of 90 minutes is normally required for each briefing. More time may be required for complex or controversial projects.

What materials should the Formal Signature Briefing include?

The Formal Signature Briefing will focus on the document itself. The document needs to be "camera-ready" (i.e. have all graphics and text in the final format ready for printing and release to the public). We will primarily work from the environmental document at this briefing. Do not use only maps, charts, or graphs that are not available to the general public. It is helpful to tab the document pages that will be referred to at this briefing.

Who should attend?

- Necessary project staff and consultants to conduct the briefing
- Environmental Services NEPA Contact
- A Highways and Local Programs representative for local projects
- Director of WSDOT Environmental Services

Meeting Materials

Two copies of the environmental document and briefing agenda should be provided to the NEPA Contact at least three days prior to the Formal Signature Briefing. Also, bring enough copies of the document for all briefing attendees to follow and participate in the briefing discussion.

Formal Signature Briefing Meeting Agenda

Please see Attachment 2 to this paper for the standard Formal Signature Briefing agenda that needs to be followed.

8. Make any changes identified as being needed at the Formal Signature Briefing

The project schedule should provide adequate time between the Formal Signature Briefing and public distribution of the document to make any needed document changes identified during the Formal Signature Briefing.

9. Obtain Federal Highway Administration Signature Approval

Final signature approval of the document is obtained from the FHWA Division Office after the Director of Environmental Services approves the document.

10. Distribute document to public and agencies

Attachment Number 1

NEPA Contact	Area of Responsibility
Carol Lee Roalkvam 360-705-7126	Environmental Policy
Environmental Performance Program Manager Tony Warfield 360-705-7492	Supervise Program Staff
Ernie Combs 360) 705-7498	NW and Olympic Region and H&LP in those regions. Also, Snoqualmie Pass East Project
Phil KauzLoric 360-705-7486	Urban Corridors Projects and other "Mega" projects and Southwest Region including H&LP and Ferries
Steve Yach 509-324-6132	All Eastern, North Central and South Central Regions and H&LP projects in those regions
Kathleen McKinney 360-705-7304	Statewide – NEPA Policy, Human Environment, Environmental Justice, and Social

Attachment Number 2 Standard Briefing Agenda for both the Pre-Briefing and Formal Signature Briefings

1. Executive Summary

- Project Summary including alternatives
- Summary of environmental review process
- Public involvement summary
- Tribal Coordination Steps
- Significant environmental impact/mitigation issues
- Environmental Documentation Cost
- Environmental Commitments
- Any other significant or controversial issues

The seven items above in the Executive Summary portion of the agenda should be reviewed in about 3 to 5 minutes each, and focus on identifying just the main points associated with each topic.

2. Detailed Environmental Review

Review each environmental element in the document and discuss impacts and mitigation. Discussion will be brief where issues are straightforward and more detailed commensurate with the importance or significance of the particular issue.

Address the following specific issues

The following issues will need to be specifically addressed at both the Pre-Briefing and the Formal Signature Briefing:

- All project commitments to mitigation measures shall be specifically identified in the document including: (a) who will oversee follow-through, and (b) likelihood of the commitments being implemented. These commitments also need to be specifically identified in the environmental document in one location. We recommend a bulleted list on a separate page or appendix.
- Project environmental benefits (i.e. stormwater retrofit, habitat enhancements, air quality improvements, etc.) should be clearly identified as positive environmental outcomes incorporated into the project.
- Project specific environmental compliance issues should be summarized (e.g. endangered species, hazardous materials, stormwater, areas of controversy, etc.).
- The project should comply with the current Highway Runoff Manual.
- For final EISs, explain how the project and document have changed based upon the comments received in the public review process.

3. Formal Signature Briefing Wrap Up

Upon approval, the Director of Environmental Services will sign three copies of the title page for the document. Any actions or document revisions that are identified as being needed during the briefing will be documented. If major issues remain to be resolved the project proponent will take the necessary steps to modify the document, as needed, and reschedule a final Formal Signature Briefing.

PREFACE

This outline¹ is provided for the guidance of preparers and reviewers of Environmental Assessments (EAs). It is intended to ensure that EAs are complete and in compliance with National Environmental Policy Act (NEPA) regulations 40 CFR 1500 to 1508, and Federal Highway Administration (FHWA) regulations and guidelines set forth at 23 CFR 771, and in Technical Advisory T 6640.8A.

An environmental assessment must be prepared for all actions involving Federal funds and/or approvals which do not qualify as a categorical exclusion and do not clearly require an environmental impact statement (EIS). The purpose of an EA is twofold. First, an EA should resolve any uncertainty as to whether an EIS is needed. Should the need for an EIS become evident at any time during the EA process, one should be started. The second purpose of an EA is to provide sufficient information to serve as the record for all environmental approvals and consultations required by law.

If an EIS is not required, the EA is made available to resource agencies and the public for a 30-day review and comment period. Following public availability period, an erratum is written, or the EA is revised, or a supplemental EA is prepared, as appropriate, to (1) describe changes to the proposed action or mitigation resulting from comments received on the EA or at the public hearing, if one is held; (2) include any necessary findings, agreements, or determinations (e.g., wetlands, Section 106, etc.); and (3) include a copy of pertinent comments received on the EA and the agency's responses to the comments. This supplemental EA is then submitted to FHWA along with a copy of the public hearing transcript (if one is held), and a request for a finding of no significant impact (FONSI). If FHWA concurs with the finding, the EA process is completed with a determination that the action will have no significant impact to the environment (the FONSI), issued by FHWA.

This EA outline is designed to be a guide. It should not be viewed as an inflexible format for every EA. Although the regulations do not set page limits, the Council on Environmental Quality recommends that the length of EAs usually be less that 15 pages. *To minimize volume, an EA should use good quality maps and exhibits.* Background data and technical reports should be incorporated by references and summarized to support concise discussions of the alternatives and their impacts.

FHWA no longer requires use of metric units in addition to English (see Section 411.02(4)). ASTM E 380-92 is recommended as a source of information on metric conversion. The metric unit should come first, followed by the English unit in parenthesis, as shown on the following page.

Include the following items on a separate page, immediately following the title page of the document:

- ADA Disabilities Notice
- Civil Rights Notice
- Note on metric usage (if applicable)

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¹ Source: WSDOT Project Development Office, July 1988.



Persons with disabilities may request this information be prepared and supplied in alternate forms by calling the WSDOT ADA Accommodation Hotline collect 206-389-2839. Persons with vision or hearing impairments may access the WA State Telecommunications Relay Service at TT 1-800-833-6388, Tele-Braille 1-800-833-6385, or Voice 1-800-833-6384, and ask to be connected to 360-705-7097.

"Washington State Department of Transportation (WSDOT) hereby gives public notice that it is the policy of the department to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898, and the related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, sex, or national origin, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which WSDOT receives federal financial assistance."

Where metric measurements are used in this document, the metric unit is given first, followed by the English unit in parenthesis; for example: "The HOV lane is separated from adjacent lanes by a designated buffer width of 0.6 to 1.2 m (2 to 4 ft)."

ENVIRONMENTAL ASSESSMENT OUTLINE CONTENTS

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Description of Proposed Action	4
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Alternatives to the Proposed Action	5
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COVER SHEET

There is no required format for an EA cover sheet.

TABLE OF CONTENTS

- A. Include all sections as well as a list, if possible, of any documents which are appended, adopted, or serve as technical reports for the EA.
- B. Include a list of all maps, illustrations, and figures.

DESCRIPTION OF THE PROPOSED ACTION

Describe the proposed action. If more than one alternative is being considered, describe each alternative. Include maps, illustrations, exhibits, etc.

Be careful to include sufficient design data to allow an accurate assessment of impacts without committing to specific details which are subject to refinement or change. Lane and shoulder widths, median widths, etc., may be omitted or expressed as a variable if not definitely known. For example, "The proposed project would provide two lanes in each direction with a continuous, center, two-way left turn lanes. Including shoulders, the total roadway width would be 76 feet"; or "The proposed project would widen the existing roadway to two 12-foot lanes with 8 to 10 foot paved shoulders." Do not assume that proposed design deviations will be approved at a future date.

- A. Location, length, termini, and why the termini are logical.
- B. Major design features (brief description, not a complete design report).
 - 1. Number of lanes, tracks, or runways
 - 2. Median type/ function.
 - 3. Pavement or construction type.
 - 4. Typical cross-section(s).
 - 5. Provisions for mass transit.
 - 6. Provisions for high occupancy vehicles.
 - 7. Interchange and/or structural locations.
 - a. Interchanges.
 - b. Grade separations.
 - c. At-grade intersections.
 - d. Railroad crossings.
 - e. River crossings.
 - f. Pedestrian, bicycle, or equestrian crossings.
 - 8. Right of way acquisition requirements. (Identify whether additional right of way will or will not be required. Specific right of way acquisition impacts are discussed under impacts elsewhere in the EA.)
 - 9. Illumination.
 - 10. Pedestrian and bicycle facilities.
 - 11. Displacement of utilities.
 - 12. Estimated cost and construction schedule.
 - 13. Identify permits needed, including name of permitting agency.

PURPOSE OF AND NEED FOR ACTION

Identify and describe the transportation problem(s) which the proposed action is designed to address and how the problem will be resolved. The following is a list of items which may assist in clearly demonstrating the need for the action. All of the items are not applicable in every situation.

- A. Transportation Demand and Capacity Needs. Is the present facility inadequate for existing traffic? Will the proposed action alleviate traffic congestion? Include relationship to any regional, state, or local plans or urban transportation plan.
- B. Safety Needs. Are existing accident rates excessively high? How will the proposed action decrease the accident rate? (Include quantitative accident figures before and predicted rate after construction.) Is the proposed action necessary to correct an undesirable situation?
- C. System continuity. Is the proposed action necessary to complete a gap in the existing transportation system?
- D. Structural Needs. Is the proposed action needed to improve the structural condition of the existing facility?
- E. Social Service Demands or Economic Development Needs. What projected economic development/land use changes indicate the need to improve or add to the highway capacity? Consider new employment, schools, land use plans, recreation, etc.
- F. Environmental Impact Mitigation Needs. Is the proposed action designed to mitigate impacts caused by a related project?
- G. Modal Interrelationship Needs. How will the proposed action interface with air, rail, and/or port facilities, mass transit services, etc.?
- H. Legislative Mandate. Is there a Federal, state, or local governmental mandate for action?

ALTERNATIVES TO THE PROPOSED ACTION

Discuss alternatives to the proposed action, including the "no-action" alternative. Reasons for elimination of alternatives should be included.

IMPACTS OF THE PROPOSED ACTION

The primary purpose of an EA is to help the agency and the FHWA decide whether or not an EIS is needed. Therefore, the EA should address only those resources or features which the agency and the FHWA decide will have a likelihood for being significantly affected. Impact areas which do not have a reasonable possibility for individual or cumulative significant environmental impacts need not be discussed. However, if it would be unclear to a layman why an impact area is unaffected, the EA should briefly explain why there is no effect. The EA should list those elements of the environment which will not be significantly affected.

Discuss any social, economic, and environmental impacts that would be caused by the proposed action, or by each alternative if more than one proposal is under consideration, whose significance is uncertain. The level of analysis should be sufficient to adequately identify the impacts and appropriate mitigation measures, and to address known to foreseeable public and agency concerns. Discuss why these impacts are not considered significant.

For each element analyzed, include the following information:

- A. Studies performed and coordination conducted.
- B. Affected environment. The description of the affected environment shall be no longer that is necessary to understand the effects of the proposed action.
- C. Impacts of the proposed action during construction.
- D. Impacts of the proposed action during operation.
- E. Mitigation measures, commitments, and monitoring procedures.

F. Why the impacts are not considered significant.

The following areas should be identified or addressed in the document as not affected, or as not being significantly affected, by the project.

- Land use
- Farmland
- Community Distribution
- Right of Way Acquisition and Displacement
- Economics
- Pedestrians/Bicyclists
- Air Quality
- Noise
- Water Quality
- Wetlands
- Fish and Wildlife
- Floodplain
- Ecologically Sensitive Areas
- Wild and Scenic Rivers
- Coastal Barriers
- Coastal Zone Impacts
- Threatened or Endangered Species
- Historic Archaeological Preservation
- Hazardous Waste
- Asbestos
- Visual Quality
- Energy Conservation
- Construction Activity Impacts
- Secondary and Cumulative Impacts
- Irreversible and Irretrievable Commitment of Resources
- Relationship of Short-term Uses of Environment and Long-term Productivity
- Socioeconomic and Environmental Justice

COMMENTS AND COORDINATION

Describe all early and continuing coordination and public involvement efforts, and summarize the key issues and pertinent information received from government agencies and the public. Include a list of agencies and, as appropriate, members of the public consulted.

APPENDICES (if any)

The appendices should include only information that substantiates an analysis important to the EA (e.g., a biological assessment for threatened or endangered species). Other material should be referenced only (i.e., identify the material and briefly describe its contents).

SECTION 4(f) EVALUATION (if any)

If the EA includes a Section 4(f) evaluation, the EA/draft Section 4(f) evaluation must be circulated to the appropriate agencies for Section 4(f) coordination (23 CFR 771.135 (i)). The revised EA or EA Errata/final Section 4(f) evaluation would then be required to specifically address: (1) the reason(s) why the alternatives to the proposed action that would avoid each Section 4(f) property are not feasible and prudent; and, (2) all measures which will be taken to minimize harm to each Section 4(f) property. If a revised EA or EA *errata* is not required, the final Section 4(f) property evaluation discussion of avoidance alternatives and mitigating measures will be included in the FONSI.

Refer to Section 455.05 for specific guidance on preparing or reviewing Section 4(f) evaluations.

ENVIRONMENTAL COMMITMENT LIST

A list of environmental commitments (if any) should be developed in conjunction with the preparation of an EA. Refer to <u>Chapter 490</u> for guidance on the preparation, timing, circulation, and tracking of commitments.

SEPA Adoption of Existing Environmental Document for a DNS or DS

DETERMINATION OF NONSIGNIFICANCE (SEPA) AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Description of current proposal		
Proponent		
Location of current proposal		
Title of document being adopted		
Date adopted document was prepared		
Description of document (or portion) being adopted	d	
If the document being adopted been changed (Wa	AC197-11-630), please describe:	
The document is available to be read at (place/time	ne)	
impact on the environment. An environmental impact on the environmental. An environmental impact of the second of	eview of a completed environmental checklist and other rmation is available to the public on request.	
review. The document meets our environmental raccompany the proposal to the decision-maker. Name of agency adopting document		
	Phone	
Responsible official		
Position/title		
Address		
Date Signature		
ECY 050-46(b) (Rev. 4/98)		

DETERMINATION OF SIGNIFICANCE (SEPA) AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Description of current proposal		
Proponent		
Location of current proposal		
Title of document being adopted		
Agency that prepared document being adopted		
Date adopted document was prepared		
Description of document (or portion) being adopted		
If the document being adopted been changed (WAC197-11-630), please describe:		
The document is available to be read at (place/time)		
EIS REQUIRED. The lead agency has determined this proposal is likely to have a significant adverse impact on the environment. To meet the requirements of RCW 43.21C.030(2)(c), the lead agency is adopting the document described above. Under WAC 197-11-630, there will be no scoping process for this EIS. We have identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision-maker.		
Name of agency adopting document		
Contact person, if other than responsible official	Phone	
Responsible official		
Position/title	Phone	
Address		
Date Signature		
ECY 050-46(a) (Rev. 4/98)		

Public Notice and DNS (SEPA)

NOTICE OF DETERMINATION OF NONSIGNIFICANCE

(Agency name) issued a determination of non-significance (DNS) under the State Environmental Policy Act Rules (Chapter 197-11 WAC) for the following project: (project description and location) proposed by (applicant's name). After review of a completed environmental checklist and other information on file with the agency, (agency name) has determined this proposal will not have a probable significant adverse impact on the environment.

Copies on the DNS are available at no charge from (name), (address). The public is invited to comment on this DNS by submitting written comments no later than (date) to (name) at the above address.

(NOTE: Whenever possible, combine the public notice for DNS comment period with the public notice for any comment period and/or public hearing held on the permit or license.

DETERMINATION OF NON-SIGNIFICANCE (DNS)

Description of proposal:				
Proponent: Washington State Department of Transportation				
Location of proposal, including street address, if any:				
Lead Agency:	Washington State Depa	artment of Transportation		
adverse impact under RCW 43 Environmental	on the environment. An .21C.030(2)(c). This de	etermined that it does not have a probable significant in Environmental Impact statement (EIS) is not required cision was made after review of a completed formation on file with the lead agency. This information is		
There is no comment period for this DNS.				
X	This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by XXXXXXXXXXXX, 2001.			
Responsible O	Official: X	xxxxxxxxxxxxx		
Position/Title:	R	egional Environmental Manager		
Address:	X	XXXXXXXXXXXXXX		
Phone:	X	XXXXXXXXXX		
Date:		Signature:		

Sample Notice of Action Taken by WSDOT (SEPA)

Notice is given under SEPA, RCW 43.21C.080, that the Washington State Department of Transportation took the action described in (2) below on (insert date), following a 21-day appeal period.

- 1. Any action to set aside, enjoin, review, or otherwise challenge such action on the grounds of noncompliance with the provisions of Chapter 43.21C RCW (State Environmental Policy Act) shall be commenced on or before July 5, 1989.
- 2. Description of Agency Action: Design Approval of the project entitled;

SR 20 Brown Road to Jones Creek, by the Washington State Department of Transportation.

3. Description of Proposal:

The project would widen and reduce the curvature of 6.8 miles of highway on essentially the same alignment.

4. Location of Proposal:

In Washington County on SR 20 between MP 185.56 and MP 192.37.

- 5. Type of Environmental Review under SEPA: Final Environmental Impact Statement entitled:
 - SR 20 Brown Road to Jones Creek. Approved by the WSDOT on (insert date) and by FHWA on (insert date). Issued by the WSDOT on (insert date). Adopted for SEPA on (insert date). Documents may be examined during regular business hours at: (insert office name, address, phone and project web site (if available)).
- 6. Name of Agency Giving Notice:

Washington State Department of Transportation.

7.	This noti	ice is file	d by	/ :
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	(Name) Regional Environmental Manager
•	Date

Template for Coordinated Review of Discipline Reports

"Pro	ject name"	"Document Name" (e.g. DEIS) "Date of Document"	"Age	viewer nan ency" ee Submitte		"Priority" Column: 1 Comment must be addressed. 2 Comment does not constitute a "fatal flaw", but revisions are needed to improve the completeness of information and readability. 3 Comment represents typographical or grammatical errors. (These categories may be revised by the IDT.)
Page	Paragraph or line number	COMMENT		Priority	Respon	nse (How was the comment addressed?)

Sample Environmental Reevaluation/Consultation Form

23 CFR §771.129 Washington State Department of Transportation/Federal Highway Administration

		1	GRAM#	FEDERAL AID #	''	ROJECT#	
ROJECT TITLE, ENVIRONMEN	ITAL DOCUMENT TY	PE & DATE APPR	OVED				
EASON FOR CONSULTATION							
ESCRIPTION OF CHANGED C	ONDITIONS						
AVE ANY NEW OR REVIOER	AVAIO OD DEGUII ATIA			00 (AL OF THE LACT ENDING	ONIMENTAL D	0011451177147745	
AVE ANY NEW OR REVISED L ROJECTS? YES () NO ()				OVAL OF THE LAST ENVIR	ONMENTAL D	OCUMENT THAT AFF	ECIS IHIS
III I THE CHANGED CONDITION	NIC ACCEPT THE ED	LOWING DIEEE	DENITI V TUAT I	SESCOIDED IN THE ODICIN	AL ENVIDON	MENTAL DOCUMENT	(If yes, attach a
			RENTLY THAT (DESCRIBED IN THE ORIGIN	AL ENVIRON	MENTAL DOCUMENT.	(If yes, attach a
			RENTLY THAT I	DESCRIBED IN THE ORIGIN	AL ENVIRON	MENTAL DOCUMENT. <u>YES</u>	(If yes, attach a
etailed summary addressing	the impacts and mit	igation)	<u>NO</u>	DESCRIBED IN THE ORIGIN			
etailed summary addressing 1) THREATENED or ENDAI	the impacts and mit	igation) <u>YES</u>	<u>NO</u> () 5)		3	<u>YES</u>	<u>NO</u>
etailed summary addressing 1) THREATENED or ENDAI 2) PRIME and UNIIQUE FA	the impacts and mit	igation) YES	NO 5) () 6)	HAZARDOUS WASTE SITES	3	<u>YES</u> ()	<u>NO</u>
1) THREATENED or ENDAI 2) PRIME and UNIIQUE FA 3) WETLANDS	the impacts and mit	igation) YES ()	NO () 5) () 6) () 7)	HAZARDOUS WASTE SITES	3	<u>YES</u> () ()	NO () ()
2) PRIME and UNIIQUE FA3) WETLANDS	the impacts and mit	<u>YES</u> () ()	NO () 5) () 6) () 7)	HAZARDOUS WASTE SITES HISTORIC or ARCHAEOLOC 4 (f) LANDS	3	YES () () ()	NO () () ()

Environmental Procedures Manual M 31-11 March 2006

(If yes	s address comments below)							
		YES	NO			YES	NO	
1)	AIR QUALITY	()	()	7)	WATER QUALITY	()	()	
2)	NOISE	()	()	8)	VISUAL QUALITY	()	()	
3)	LAND USE	()	()	9)	NATURAL RESOURCES and ENERGY	()	()	
4)	TRAFFIC or TRANSPORTATION	()	()	10)	PUBLIC SERVICES and UTILITIES	()	()	
5)	DISPLACEMENT (business or residence)	()	()	11)	VEGETATION and WILDLIFE	()	()	
6)	ECONOMIC GROWTH and DEVELOPMENT	()	()	12)	RECREATION	()	()	
				13)	SOCIAL IMPACTS	()	()	
CONC	CLUSIONS and/ or RECOMMENDATIONS 1							
I cond	cur with the conclusions and recommendation	ns above						
Distri	ct/ Division Official	WSDOT HQ) Official		FHWA Official			
				_				

Date _____ Date ____

Date_____

WILL THESE CHANGES CAUSE ADVERSE IMPACTS IN THE FOLLOWING AREAS:

420.01	Introduction
420.02	Applicable Statutes and Regulations
420.03	Policy Guidance
420.04	Interagency Agreements
420.05	Technical Guidance
420.06	Permits and Approvals
420.07	Non-Road Project Requirements
420.08	Exhibits

420.01 Introduction

This chapter includes information and requirements for describing geologic and soil conditions in the vicinity of the project area, and detailing probable environmental impacts of project alternatives on these conditions. Information and requirements for describing groundwater resources, including probable project impacts to public water supplies which use groundwater, are presented in **Chapter 433**.

(1) Summary of Requirements

The Geology and Soils Discipline Report should include information on the regional and local geologic setting, topography, significant features and landforms, geologic hazards, soil types and relevant properties, erosion potential, and geology and soils economic resources. Project impacts include those associated with construction and operation of the project.

WSDOT's Soils and Geology Discipline Report Checklist (Exhibit 420-1) provides a concise framework for describing geologic and soil conditions and detailing probable environmental impacts of project alternatives. Information referred to in this chapter, including legislation, regulations and permitting processes, interagency agreements, and technical resources, provides the basis for the checklist.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in Appendix A.

SSP Stormwater Site Plan
TESC Temporary erosion and sedimentation control

(3) Glossary

None. See **Appendix B** for a general glossary of terms used in the EPM.

420.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to geology and soils issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 420.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC <u>Section 4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts to the earth are given due weight in project decision-making. The State Environmental Policy Act (SEPA), mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see Chapter 410 and Chapter 411.

(2) Growth Management Act

In 1990, the Washington State Legislature adopted the Growth Management Act (GMA), codified as RCW 36.70A. This statute, combined with Article 11 of the Washington State Constitution, mandates that local jurisdictions adopt ordinances that classify, designate, and regulate land use in order to protect critical areas. Critical areas include geologically hazardous areas; these areas are regulated locally through critical/sensitive areas ordinances (see below). See Section 451.02 for more information on the GMA.

Under the GMA, state agencies must comply with local comprehensive plans and development regulations (RCW 36.70A.103); likewise local agencies should coordinate their transportation planning with WSDOT.

(3) Local Ordinances and Regulations

(a) Critical /Sensitive Area Ordinances (CAO/SAO)

These laws protect locally designated critical/sensitive areas, which include geologically hazardous areas. Local sensitive or critical areas ordinances may identify areas susceptible to erosion, sliding, earthquake, or other geological events, which pose a threat to health and safety when incompatible development is sited in areas of significant hazard. Unless the local laws conflict with state law, WSDOT must be consistent with the requirements of local regulations. Local planning departments should be contacted to determine the location or descriptive criteria of geologically hazardous areas which may impact the project. (See Section 550.04 for information on permit requirements.)

(b) Other Local Ordinances

Local ordinances also regulate building and clearing/grading. For projects outside the right-of-way, including development and operation of borrow pits, WSDOT must comply with these ordinances. (See Section 550.05 for details on obtaining building, clearing and grading permits.)

420.03 Policy Guidance

The Transportation Commission's Policy Catalog includes no policies specifically referring to geology and soils.

420.04 Interagency Agreements

No interagency agreements specifically related to geology and soils were identified. See **Appendix E** for a complete appendix to interagency agreements referenced in the EPM.

420.05 Technical Guidance

(1) WSDOT Discipline Report

WSDOT's Geology and Soils Discipline Report provides discipline-specific information required for EAs, EISs, permits and other environmental documents. This information includes a description of the geologic features, soil types, and relevant geologic and soils-related hazards and economic resources in the vicinity of the project area, and probable environmental impacts and mitigation options for each project alternative.

A full Discipline Report is generally needed when:

- Geologic and soils-related hazards (e.g. critical/sensitive areas, highly erosive soils) are likely to be identified within or near the project area, and the project is likely to impact or be impacted by these hazards;
- Geologic and soils-related economic resources (e.g. borrow, aggregate, topsoil) are likely to be extracted and utilized by the project in a quantity or manner which is likely to have environmental impacts, and these impacts and associated mitigation options are not adequately addressed in other discipline reports (e.g. Air Quality, Water Quality).

If a full discipline report is determined to be unnecessary, a concise description of the geologic setting and soils in the vicinity of the project area may be included as part of the overall description of the affected environment if appropriate.

The Geology and Soils Discipline Report generally contains the following major sections:

- Summary
- Description of Project Alternatives
- Study Methodology
- Coordination
- Affected Environment
- Environmental Impacts
- Mitigation of Impacts
- References/Information Sources

Sections which are sufficiently brief may be combined with other sections where it makes sense to do so (e.g. Study Methodology and Coordination).

Technical reports, memoranda, data summaries, or other documentation developed to support the Discipline Report should be placed in one or more appendices after the main body of the report.

Further guidance for preparing the discipline report is provided below. See **Exhibit 420-1** for a Discipline Report checklist for this section.

(a) Summary

The summary presents significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms. It should be suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making.

(b) Description of Project Alternatives

This section presents a brief description of project alternatives identified during the scoping process. Descriptions should be consistent with those in other Discipline Reports.

(c) Study Methodology

This section describes the approach used to determine environmental impacts, hazard areas, economic resources, and other report findings and conclusions. The description should include data and information sources, field methods, analysis techniques and tools, and decision criteria, and should be as succinct as possible. Detailed descriptions, where necessary, should be included in the appropriate appendix.

(d) Coordination

This section identifies agencies and other organizations involved with or contacted during the development of the report.

(e) Affected Environment

This section describes the existing conditions with respect to geology and soils in the vicinity of the project area. Topic areas include the following:

- (i) Geologic Setting describe key structures, landforms and geologic units.
- (ii) Topography.
- (iii) *Soils* describe soil types and relevant soil properties and site limitations.
- (iv) *Geologic Hazards* identify areas that are susceptible to one or more of the following types of hazards:
 - Erosion hazard
 - Landslide hazard
 - Seismic hazard
 - Volcanic hazard
 - Other geologic hazard (e.g. subsidence, rockfall)

In much of the state, hazard areas have been delineated in the process of developing local Critical/Sensitive Area Ordinances. Contact the appropriate local planning departments to obtain the most current information. In some localities, hazard area are not delineated on maps, but are defined in terms of landscape characteristics (e.g. slope, geologic unit, field indicators); in these instances, hazard areas should be mapped by identifying where the defining characteristics apply to the project area.

 (v) Economic Resources – describe source areas (existing and potential) for construction materials (e.g. borrow, aggregate, topsoil) in the vicinity of the project.

(f) Environmental Impacts

This section describes the predicted environmental impacts of project alternatives on geologic and soil conditions, hazards, and economic resources, as well as predicted impacts of identified geologic hazards on project alternatives. Impacts to be considered include direct (construction and operational), indirect, and cumulative. For more information about analysis of impacts, see Section 411.09.

(g) Mitigation of Impacts

This section describes mitigation measures, commitments, and monitoring procedures as well as mitigation measures considered or available but not included, with reasons why.

(2) Erosion and Sedimentation Control

WSDOT's *Highway Runoff Manual* (M 31-16) contains approved methods of managing sediment runoff from WSDOT facilities. For erosion control and sedimentation requirements, including preparation of the Temporary Erosion and Sedimentation Control (TESC) Plan, see Chapter 2 and Chapter 6. Erosion prevention and sediment control are also addressed in WSDOT's *Roadside Manual* (M 25-30), Chapter 710.

Please refer to Section 431.05 and Section 431.06 for additional technical guidance and permits related to erosion and sedimentation.

420.06 Permits and Approvals

Permit requirements pertaining to Geology and Soils are addressed in the following sections:

Federal

 Section 520.13 – Authorization for Use of Public Lands (e.g. borrow pits on federal land)

State

- Section 540.17 Easement over Public Land (e.g. borrow pits on state land)
- Section 540.19 Surface Mining Reclamation Permit
- Section 540.25 Other State Approvals (Soil Boring Geotech Investigations)

Local

- Section 550.04 Critical Areas Ordinance Compliance
- Section 550.05 Clearing, Grading, Building Permits

420.07 Non-Road Project Requirements

For ferry-related projects, the Geology and Soils Discipline Report should also address potential for shoreline erosion/accretion during construction and operations, underwater marine sediments, and geology. For other non-road projects, the requirements would be the same as for road projects.

420.08 Exhibits

Exhibit 420-1 – Geology and Soils Discipline Report Checklist.



Discipline Report Checklist Geology and Soils

Projec	t Name	:			Job Number:
Contac	ct Name	e:			
Date F	Receive	d:		Da	ate Reviewed: Reviewer:
(SAT	= Satisf	actory;	INC =	Incomp	olete; MIS = Missing; N/A = Not Applicable)
Answe	ers are 1	equired	for que	estions	which have no N/A box.
I.	Sumn	nary			
SAT	INC	MIS	N/A		
				A.	Presents significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms.
				В.	Summary is suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making.
II.	Studio	es and	Coordi	nation	
Includ	ed the s	sources	of infor	mation	used, such as:
SAT	INC	MIS	N/A		
				A.	U.S. Geological Survey topographic and geologic maps; Department of Natural Resources Geology and Natural Resource Division Geologic Maps.
				B.	National Resource Conservation Service County Soil Survey(s).
				C.	Department of Ecology's Coastal Zone Atlas of Washington.
				D.	County Geologic Hazard and Critical/Sensitive Areas maps.
				E.	Published reports, studies and boring logs from past projects and adjacent development.
				F.	Field review of site.
				G.	Coordination with appropriate federal, state, and local agencies and tribes.

III.	Affect	ed Env	ironme	ent	
Discus	ss as ap	propriat	e:		
SAT	INC	MIS	N/A		
				A.	General topographic and geologic setting and significant features and landforms.
				B.	Soil types and relevant soil properties and site limitations.
				C.	Geologic hazards identified including:
					erosion hazards
					landslide hazards
					seismic hazards
					volcanic hazards
					other geologic hazard (e.g. subsidence, rockfall)
				D.	Hazard identification incorporates local critical/sensitive area ordinances where they exist.
				E.	Describe source area (existing and potential) for construction materials (e.g. borrow, aggregate, topsoil) in the vicinity of the project.
IV.	Impac	ts			
Descri	be:				
SAT	INC	MIS	N/A		
				A.	Predicted direct construction and operational impacts of all project alternatives on geologic and soil condition, identified hazards, and economic resources.
				B.	Predicted impacts of identified geologic hazards on project alternatives.
				C.	Indirect and cumulative impacts of project alternatives on geologic and soil condition, identified hazards, and economic resources.

V.	Mitiga	ation			
Descri	be:				
SAT	INC	MIS	N/A		
				A.	Mitigation measures, commitments, and monitoring procedures associated with impacts described in IV above.
				B.	Mitigation measures considered or available but not included, with reasons why.
Gener	al Com	ments:			

425 Air

425.01	Introduction
425.02	Applicable Statutes and Regulations
425.03	Policy Guidance
425.04	Interagency Agreements
425.05	Technical Guidance
425.06	Permits and Approvals
425.07	Non-Road Requirements
425.08	Exhibits

Key to Icons

Web site.*



Interagency agreement.

425.01 Introduction

Air quality impacts can result from various WSDOT activities and projects including transportation-related projects (vehicle emissions) and maintenance, construction, or demolition of facilities (particulates and other emissions). Handling and disposal of asbestos (as a result of construction and maintenance activities) is discussed in **Section 447.05**(7)(b). Air quality permits necessary for asbestos abatements are identified below and discussed further in **Section 540.23**.

(1) Summary of Requirements

Federal, state, and local regulations require that projects that change traffic flow, increase capacity and/or traffic lanes, or add traffic signals within carbon monoxide nonattainment or maintenance areas conduct quantitative analysis for potential impacts to carbon monoxide at the project level. All transportation projects requesting federal funding and all regionally significant projects within carbon monoxide, ozone, or PM_{10} nonattainment or maintenance areas must be analyzed for regional air emissions of the applicable pollutant for which the area is designated nonattainment or maintenance.

This regional analysis is usually conducted by the local metropolitan planning organization (MPO) or regional transportation planning organization (RTPO) when assembling the regional transportation improvement program (RTIP) (see Section 320.04). Additional regional analysis would only be needed for very large, regionally significant projects.

Air quality is generally assessed in terms of whether or not concentrations of air pollutants are higher or lower than National Ambient Air Quality Standards (NAAQS) set to protect human health and welfare. All projects that develop Environmental Impact Statements (EISs) must also complete air quality

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

evaluations for applicable areas of concern which may include discussion of fugitive dust, odors, and asbestos as applicable.

Agencies with jurisdiction over ambient air quality in Washington include the U.S. Environmental Protection Agency (USEPA), the Washington State Department of Ecology (Ecology), and local clean air authorities. These agencies establish regulations governing the concentrations of pollutants in the ambient air, visible emissions, and contaminant emissions from air pollution sources. Although their regulations are similar, each agency has established its own standards. Unless the state or local jurisdiction has adopted more stringent standards, the USEPA standards apply.

Based on monitoring information collected over a period of years, the state (Ecology) and federal (USEPA) agencies designate regions as "attainment" or "nonattainment" areas for particular air pollutants called "criteria" pollutants. Attainment status is therefore a measure of whether or not air quality in an area complies with the relevant NAAQS for six criteria air pollutants: carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide. Once a nonattainment area achieves compliance with the NAAQS, the area is considered an air quality "maintenance" area until the standard has been maintained for 10 years.

Under federal and state clean air rules there are special requirements in nonattainment and maintenance areas to ensure that proposed transportation projects do not cause or contribute to existing air quality problems. These so-called "conformity rules" require analysis to demonstrate compliance with existing air quality control plans and programs. Guidelines referenced in this chapter will assist in determining air quality analysis requirements.

Fugitive dust is particulate matter that is suspended in the air by wind or human activities. Projects that require earthwork or otherwise have the potential to create fugitive dust are required to utilize best management practices (BMPs) to control dust at WSDOT project sites.

Global climate change and output of greenhouse gases (carbon dioxide) from transportation is currently unregulated, but is an area of interest. See **Chapter 440** Energy for additional information.

Mobile source air toxic emissions are also an emerging area for project level consideration. For additional information or requirements in this area, see the WSDOT Air Quality webpage at:

http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/default.htm

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

BMP Best Management Practices
CAA Clean Air Act (Federal)
CAAA Clean Air Act Amendments
CAWA Clean Air Washington Act

CMAQ Congestion Mitigation and Air Quality Improvement Program

CO Carbon Monoxide

HC	Hydrocarbons
ISTEA	Intermodal Surface Transportation Efficiency Act
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxic emission
NAAQS	National Ambient Air Quality Standards
NO_x	Nitrogen Oxides
O_3	Ozone
PM_{10}	Respirable or fine particulate matter, smaller than 10
	micrometers in diameter
$PM_{2.5}$	Respirable or fine particulate matter, smaller than 2.5
	micrometers in diameter
PPM	Parts per million
PSD	Prevention of Significant Deterioration
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity
	Act: A Legacy for Users
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TCM	Transportation Control Measure
TEA-21	Transportation Equity Act for the 21st Century (PL 105-178), as
	amended by the TEA-21 Restoration Act of July 22, 1998
TIP	Transportation Improvement Program
TSP	Total Suspended Particulates

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Air Study (or Air Quality Technical Report) – A quantitative evaluation for dispersion of carbon monoxide or qualitative evaluation for PM_{10} of pollutant emissions designed to address emissions from the operation of the built project. This evaluation should also include discussion of construction phase emissions such as fugitive dust, odors, and asbestos if applicable.

Carbon Monoxide (*CO*) – A by-product of the burning of fuels in motor vehicle engines. Though this gas has no color or odor, it can be dangerous to human health. Motor vehicles are the main source of carbon monoxide, which is generally a wintertime problem during still, cold conditions.

Conformity – Projects are in conformity when they do not (1) cause or contribute to any new violation of any standards in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area (USEPA's Conformity Rule).

Criteria Pollutants – Carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide.

Exempt Projects – Listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), these are mostly projects that maintain existing transportation facilities or are considered to have a neutral impact on air quality. See also WAC 173-420-120 for projects exempt from regional analysis.

Fugitive Dust – Particulate matter that is suspended in the air by wind or human activities and does not come out of an exhaust stack.

Hot-spot Analysis – An estimate of likely future localized CO and PM₁₀ pollutant concentrations and a comparison of those concentrations to the National Ambient Air Quality Standards. Hot-spot analysis assesses impacts on a scale smaller than the entire nonattainment or maintenance area (for example, congested roadway intersections and highways or transit terminals), and uses an air quality dispersion model to determine the effects of emissions on air quality (40 CFR 93.101). See 40 CFR 93.116 for analysis procedure.

Maintenance Area – An area that previously was considered a "Nonattainment Area" but has achieved compliance with the NAAQS.

Mobile Source Air Toxic emission – Any one of six priority volatile gases or small particulate compounds coming from the tailpipe of a vehicle. The six compounds are (1) formaldehyde, (2) 1,3-butadiene, (3) acrolein, (4) acetaldehyde, (5) benzene, and (6) diesel emissions.

Nonattainment Area – Area that exceeds health-based NAAQS for certain air pollutants designated by the USEPA. Current nonattainment areas are shown in WSDOT's GIS Workbench (see Section 425.05 (1)).

Ozone (O_3) – A highly reactive form of oxygen that occurs naturally in the earth's upper atmosphere (stratosphere). Stratospheric ozone is a desirable gas that filters the sun's ultraviolet (UV) radiation. Ozone at ground level is not emitted directly into the air; instead it forms in the atmosphere as a result of a series of complex sunlight-activated chemical transformations between oxides of nitrogen (NO_x) and hydrocarbons which together are precursors of ozone.

Particulate Matter (**PM**₁₀ **and PM**_{2.5}) – Includes both naturally occurring and artificial particles with a diameter of less than 10 microns or 2.5 microns respectively. Sources of particulate matter include sea salt, pollen, smoke from forest fires and wood stoves, road dust, industrial emissions, and agricultural dust. Particles of this size are small enough to be drawn deep into the respiratory system where they can contribute to infection and reduced resistance to disease.

Regionally Significant Project – A transportation project (other than an exempt project) that serves regional transportation needs, such as access to and from the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, or transportation terminals as well as most terminals themselves. Such projects would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel (40 CFR 93.101).

State Implementation Plan (SIP) – Framework for complying with federal law (40 CFR Part 51) requiring that the state take action to quickly reduce air pollution to healthful levels in a non-attainment area, and to provide enough controls to keep the area clean for 20 years. States have to develop a SIP that explains how it will do its job under the CAA. A SIP is a collection of the regulations a state will use to clean up polluted areas. USEPA must approve the SIP, and if a SIP is not acceptable, USEPA can take over, enforcing the CAA in that state. WSDOT projects must conform to the SIP before the FHWA and the USEPA can approve construction.

Transportation Improvement Program (TIP) - A staged, multiyear intermodal program of transportation projects covering a metropolitan planning area which is consistent with the state and metropolitan transportation plan, and developed pursuant to 23 CFR Part 450. The entire program must conform with the NAAQS in order for any federal funding to be granted for individual projects (except exempt projects).

425.02 **Applicable Statutes and Regulations**

This section lists the primary statutes and regulations applicable to air quality issues. See Appendix D for an index of major statutes and regulations referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 425.06.**

Federal and state air quality legislation and regulations related to transportation are online at:



http://www.wsdot.wa.gov/TA/Operations/Environmental/EnvironLeg.htm

Click on Air Quality.

(1) Federal

National Environmental Policy Act (a)

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on air quality are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see Chapter 410 and Chapter 411.

Clean Air Act (CAA)

The Clean Air Act (CAA) of 1970, 42 USC 7401 et seq., was enacted to protect and enhance air quality and to assist state and local governments with air pollution prevention programs. The statute and A Plain English Guide to the Clean Air Act are online via USEPA's home page.



http://www.epa.gov/

Click on Programs, then Offices, then Office of Air and Radiation, then Publications, Scroll down to References to see Clean Air Act and Amendments.

Or by direct link:



http://www.epa.gov/air/oaq caa.html/

Clean Air Act Amendments (CAAA) (c)

The Clean Air Act Amendments of 1990 are intended to significantly affect transportation decision-making, not only to achieve air quality goals but also to affect broader environmental goals related to land use, travel mode choice, and reduction in vehicle miles traveled. A key section of the CAAA relating to conformity is Title I, Provisions for the Attainment and

Maintenance of National Ambient Air Quality Standards (NAAQS). See USEPA home page referenced above.

(d) Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

SAFETEA-LU, like the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and the Transportation Equity Act for the 21st Century (TEA 21), as adopted and amended in 1998, offers tools to help transportation and air quality decision makers carry out the CAAA mandates. For statutes and implementing regulations, see the FHWA home page below.



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then <u>Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).</u>

Or by direct link:



http://www.fhwa.dot.gov/safetealu/index.htm

(e) Federal Implementing Regulations

Under the CAAA, the federal Department of Transportation (USDOT) cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to Clean Air Act requirements. With USDOT concurrence, the USEPA has issued regulations pertaining to the criteria and procedures for transportation conformity 40 CFR 93. Exempt projects are listed in 40 CFR 93.126.

FHWA regulations for statewide and regional transportation improvement programs and plans are defined in 23 CFR 450, Planning Assistance and Standards. Federal regulations can be accessed from the following web site:



http://www.gpoaccess.gov/cfr/index.html

Search for "40CFR93" or "23CFR450".

Or:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then Title 23 CFR, then 450.

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on air quality are given due weight in decision-making. State

implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Clean Air Washington Act

The Clean Air Washington Act (CAWA) of 1991 (RCW 70.94) requires transportation plans, programs, and projects to be consistent with the SIP to improve air quality in areas where federal air quality standards are not met. The act gives responsibility for determining conformity to the state, local government, or metropolitan planning organization that is developing the transportation plan, program, or project. It also authorizes establishment of a local air pollution control authority for each area of the state.

For details, see Ecology's home page:



http://www.ecy.wa.gov/

For the Clean Air Act and implementing regulations, click on Laws and Rules, then Index of Laws, then Title 70.94. For jurisdiction of local air pollution control agencies, click on Programs, then Air Quality, then Local Clean Air Agencies.

Or by direct link for RCW 70.94:



http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=70.94

Or by direct link for local air pollution control agencies:



http://www.ecy.wa.gov/programs/air/local.html

(c) State Implementing Regulations

WAC 173-420, Conformity of Transportation Activities to Air Quality Implementation Plans, contains regulations to ensure conformity of transportation activities to SIPs. These regulations were developed jointly by Ecology and WSDOT to meet federal and state statutory requirements. They set forth minimum requirements for evaluating transportation plans, programs, and projects for conformity with the purpose and intent of SIPs for air quality. This chapter of the WAC clarifies state policy and procedures to achieve the NAAQS, foster long range planning for attainment and maintenance of those standards, provide a basis for evaluating conformity determinations, and guide state, regional, and local agencies in making conformity determinations. Exempt projects are listed in WAC 173-420-110. Projects exempt from regional analysis are listed in WAC 173-420-120.

These regulations are online via Ecology's home page:



http://www.ecv.wa.gov/

Click on Programs, then Air Quality, then Regulations.

Or by direct link:



http://www.ecy.wa.gov/laws-rules/ecywac.html#air

State Fugitive Dust Regulations (d)

Standards are set in WAC 173-400-040 for maximum fugitive dust emissions. Ecology established these regulations but gives authority to local air pollution control agencies for enforcement. Many local air agencies have established their own regulations. State Regulations can be found at the following:



http://www.leg.wa.gov/WAC/index.cfm?section=173-400-040&fuseaction=section

425.03 **Policy Guidance**

The Transportation Commission's Policy Catalog contains a specific policy statement on meeting environmental responsibilities related to air quality: "Minimize, and avoid when practical, air, water, and noise pollution, energy usage; use of hazardous materials; flood impacts; and impacts on wetlands and heritage resources from transportation activities."

A specific objective is to reduce vehicle exhaust emissions statewide as a means of attaining federal air quality standards through a balanced approach, which provides and promotes alternatives to the single occupant vehicle; promotes the use of cleaner fuels; promotes optimum maintenance of individual vehicles; and improves the operating efficiency of the transportation system.

425.04 **Interagency Agreements**

See Appendix E for a complete guide to interagency agreements referenced in the EPM.

(1) **Fugitive Dust from Construction Projects**

The Memorandum of Agreement between WSDOT and the Puget Sound Clean Air Agency (December 1999), establishes a cooperative process to minimize fugitive dust emissions from WSDOT project sites. The agreement is online via the ESO Compliance Branch web site:



http://www.wsdot.wa.gov/environment/compliance/agreements.htm



Memorandum of Agreement between the Washington State Department of Transportation and the Puget Sound Clean Air Agency Regarding the Control of Fugitive Dust from Construction **Projects**

Technical Guidance 425.05

(1) General Guidance

Guidelines referenced in this section will assist in determining air quality analysis requirements. An air quality conformity determination is required for all nonexempt projects within or affecting a nonattainment or maintenance area for criteria pollutants as established in the NAAQS. When an Environmental Impact Statement (EIS) is required, an air quality study is required regardless of the project location.

For each WSDOT project involving earthwork, an evaluation of the construction plans and specifications should be completed to identify possible dust-producing activities. The appropriate use of Best Management Practices (BMPs) for fugitive dust control is required for all WSDOT projects (see Section 425.05(7)). For requirements on handling and disposing of asbestos, see Section 447.05(7)(b).

(a) **Exempt Projects**

Exempt projects, listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), are mostly projects that maintain existing transportation facilities, or improve mass transit or air quality, and are considered to have a neutral impact on air quality. Some projects, like Park and Ride lots, typically benefit regional air quality, but may contribute to hot spot air emissions problems. Park and Ride lots would not be considered exempt from project level analysis, but are exempt from regional analysis. The federal and state exemption lists also include a category under "hazard elimination program". Project proponents should be aware that hazard elimination from the point of view of air quality regulation is intended to address situations like removing rock fallen on the roadway or replacing guardrails that tend to be air quality neutral. If a project is funded with hazard elimination program funding, it does not automatically mean that the project is exempt from hot spot analysis. Even if new traffic signal installation or re-striping a roadway from one lane to two lanes is funded under the hazard elimination program, hot spot analysis is still required. See also WAC 173-420-120 for projects exempt from regional analysis.

Projects listed in these regulations are exempt unless the MPO, in consultation with USEPA and other applicable agencies, determines that the project has potentially adverse emissions impacts.

(b) Air Quality Standards

National Ambient Air Quality Standards (NAAQS) can be found via USEPA's home page:



http://www.epa.gov/

Click on Browse EPA topics, then Air, then Air Quality Criteria, then National Ambient Air Quality Standards.

Or by direct link:



http://www.epa.gov/ttn/naags/

Washington state and local air quality standards are online via Ecology's home page:



http://www.ecy.wa.gov/

Click on Programs, then Air Quality, then Regulations, or Local Clean Air Agencies.

Or by direct link for state standards:



http://www.ecy.wa.gov/laws-rules/ecywac.html#air

Or by direct link for local standards:



http://www.ecy.wa.gov/programs/air/local.html

(c) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets include nonattainment areas for carbon monoxide, ozone, and particulates. For information on how to access the GIS Workbench, see:



http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:



http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:



http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(2) Guidance on Conformity

The essence of conformity is very simple: transportation activities should improve or preserve, not worsen, air quality. Transportation conformity is a mechanism for ensuring that transportation activities (plans, programs and projects) are reviewed and evaluated for their impacts on air quality prior to funding approval. **Exhibit 425-1** is a flow chart summarizing the conformity process from planning to project-level analysis. **Exhibit 425-2** shows details of the preliminary process for screening WSDOT projects for air quality conformity.

(a) Conformity and NEPA Documentation

FHWA and WSDOT approval of a final environmental document for a project in a nonattainment or maintenance area also constitutes a determination that the project conforms to the SIP. A statement to the effect that the project conforms to the SIP should always be included in the text of the document. The document should also include a statement to the effect that the project is included in a conforming TIP. The specific dates of the pertinent conformity determinations from the Metropolitan Planning Organization (MPO) and FHWA/FTA should also be included. Often, consultation with the MPO is necessary to determine if a particular project comes from the plan.

All non-exempt projects in a nonattainment or maintenance area must be included in a conforming program. If a project is not in a conforming program, it cannot be found to conform and a final environmental document cannot be approved.

If only some of the project's stages are included in the conforming TIP, the project may still be found to conform (after a hot-spot analysis) provided

the total project is included in the regional emissions analysis done for the program. If the total project is not included in the regional analysis, the project cannot be found to conform and a final environmental document cannot be approved.

The project design and scope should not be significantly different from that in the currently conforming SIP and TIP. Otherwise a new regional analysis would be required. The document should include a statement about this. Project level conformity determination must be completed for all non-exempt projects.

Project level conformity determinations must use the latest planning assumptions. Key assumptions must be included in the draft documents and supporting material used during the interagency and public consultation process. Hot-spot analysis assumptions must be consistent with those in the regional emissions analysis for inputs that are required by both analyses.

(b) Criteria for Conformity

In general, under conformity rules, transportation plans, programs, and projects cannot:

- Cause or contribute to any new violation of federal air quality standards.
- Increase the frequency or severity of any existing violation of federal air quality standards.
- Delay timely attainment of federal air quality standards.

Before a final environmental document – including a Finding of No Significant Impact (FONSI) for Categorical Exclusions – for a project in a nonattainment or maintenance area can be approved by the FHWA, the project must be found to conform with the SIP. A project conforms if it is listed in a conforming TIP and also satisfies the following conditions for project level conformity:

- The project must not cause or contribute to any new localized carbon monoxide (CO) or particulate matter violations or increase the frequency or severity of any existing CO or particulate matter violations in the corresponding nonattainment or maintenance area. Concentrations can increase, as long as the increase does not result in an exceedance of the standard.
- For all CO nonattainment and maintenance areas in Washington, the project should improve or preserve CO levels at modeled locations.
 Concentrations can increase as long as there are no exceendances of the standard.
- There are no project level conditions related to ozone (O₃) in nonattainment and maintenance areas; however, all projects must be in a conforming TIP.

(c) Three-Year Time Limit

Under federal regulations (40 CFR 93.104(d)), projects must be implemented within three years of the project-level conformity

determination. If three years pass and significant steps to begin project implementation have not been initiated, a new conformity finding is required.

(3) Discipline Report

Air Quality Discipline Reports (studies) are needed for projects that require Environmental Impact Statements (EISs), and for all other projects located within non-attainment or maintenance areas that are not exempt from air quality conformity. Present law requires air quality studies for all projects within or affecting a non-attainment or maintenance area for criteria pollutants as established in the National Ambient Air Quality Standards (NAAQS). In Washington the pollutants of interest are CO, PM₁₀ and O₃. Emission projections must show that the project will not cause or contribute to a new violation of the NAAQS. When documentation requirements call for an EIS on the project, an air quality study is required regardless of the project's location. Abbreviated technical memorandums are acceptable for updating three-year-old past discipline reports with new conformity findings. Such technical memos need to reference that is it updating a previous study, and include the project title, location, and a brief discussion of what the project is intended to do.

(a) Checklist

Air impact studies are conducted in compliance with federal air quality conformity rules (40 CFR 51 and 40 CFR 93). The Air Quality Discipline Report Checklist (Exhibit 425-3) serves as the preferred guide for preparing air quality discipline reports. The report should include: an introduction describing the analysis, conformity status, impacts and coordination; description of affected environment, studies performed, and impacts for each alternative; project conformity statement; and construction activity impacts. Details on methodology or lengthy technical discussions should be placed in an appendix to the EA or EIS.

(b) Data Requirements

Current data requirements are described on WSDOT's Air Quality, Acoustics & Energy web site:



http://www.wsdot.wa.gov/environment/

Click on Air/Acoustics/Energy and go to the Air Quality, Acoustic, and Energy web site.

Or by direct link:



http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/aq dr.htm

(c) Models

The most up-to-date and accepted models are used to complete project level assessments. Qualitative methods of determining air quality impact may be acceptable for select pollutants.

(d) Consultant Scope of Work

Exhibit 425-4 is a sample scope of work that is recommended as a guide in contracting with consultants for air quality studies.

(e) Conformity

The *Guidebook for Conformity: Project-Level Air Quality Analysis*Assistance for Nonattainment Areas, published in September 1995, provides guidance to local, regional, and state agencies involved in determining conformity of proposed projects. It focuses on modeling of carbon monoxide (CO). The guidebook was developed jointly by WSDOT, Ecology, Puget Sound Regional Council (PRSC), Spokane Regional Transit Council, and Southwest Washington Regional Transportation Council. It covers definition of the analysis area and level of detail, traffic impact analysis, air quality modeling, transportation control measures, mitigation strategies for nonconforming projects, and project-level analysis case studies.

(4) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) provides guidelines for preparing environmental documents. For air quality, the draft EIS should contain a brief discussion of the transportation-related air quality concerns in the project area and a summary of the project-related carbon monoxide analysis if such analysis is performed. Note that regional air pollution control agencies usually evaluate air quality impacts to ensure that proposed projects are in conformity. For details, see FHWA's home page:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(5) Guidelines for NEPA Documentation

WSDOT provides the following additional guidance for NEPA documents.

(a) Conformity

The environmental document should include a statement of the attainment status of the area in which the project is located. If the project is in an area that is in attainment for all pollutants of concern (O₃, CO, and PM₁₀), the environmental document should say that the area is in attainment for transportation-related pollutants (list pollutants, if desired) and say that conformity does not apply.

If the area is nonattainment or maintenance for any pollutants, the document should state which pollutants cause the area to be classified as such. Then it should address conformity, making a statement to the effect that the project is in the SIP and TIP found in accordance with the USEPA final conformity regulations revised on July 1, 2001. List specific dates of the pertinent conformity determinations by the MPO and FHWA/FTA.

The document should point out that the design concept and scope have not changed since the SIP and TIP were found to conform. "Design concept" means the type of facility identified by the project, e.g., freeway, expressway, arterial highway, reserved right-of-way rail transit, mixed traffic rail transit, or exclusive busway. "Design scope" means design aspects which will affect the proposed facility's impact on regional emissions, usually as they relate to vehicle or person carrying capacity and control, e.g., number of lanes or tracks to be constructed or added, length of project, signalization, access control (including approximate number and location of interchanges), or preferential treatment of high-occupancy vehicles.

If TCMs are identified in the SIP for the nonattainment area, the document should discuss the project's potential to affect implementation of the TCMs.

The document should include evidence of coordination/consultation with USEPA and/or state and local air quality agencies.

(b) Air Quality Analysis

The document should include and discuss the results of quantitative local CO analysis (hot-spot) or explain why a quantitative analysis was not needed to assess potential air quality impacts. The following steps should be taken:

- Determine if the project will not require quantitative (hot-spot) analysis or is exempt from a conformity determination (no regional or hot-spot analysis required). Determine if the project is one of the types that do not impact regional emissions (no regional analysis required; does not have to come from conforming SIP and TIP). If the project will not require quantitative analysis, say so and make reference to 40 CFR 93.123. If the project is exempt from either regional or local analysis, say so and make reference to 40 CFR 93.126 or 40 CFR 93.127, as applicable.
- For PM₁₀ and CO nonattainment and maintenance areas after
 USEPA approves the SIP revisions, provide documentation that the
 project does not cause or contribute to any new localized CO or
 PM₁₀ violations or increase the frequency or severity of any existing
 violations in the respective area.
- For ozone nonattainment and maintenance areas the analyst needs to identify that the project is part of the MTP and TIP to assure that regional ozone conformity has been met. After June 14, 2005 the one-hour ozone standard will be revoked and no ozone discussion will be required.

The document should discuss key assumptions made in performing the analysis. The assumptions must satisfy the following requirements:

 Planning assumptions must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed or approved by the MPO. Hot-spot analysis assumptions must be consistent with those in the regional emissions analysis for inputs that are required by both analyses.

(6) Online Technical Guidance References

(a) USEPA Guidance on Carbon Monoxide Modeling

The Guideline for Modeling Carbon Monoxide from Roadway Intersections (USEPA-454/R-92-006), published in November 1992 by USEPA's Office of Air Quality Planning and Standards, includes guidance on receptor siting, intersection selection procedure, intersection analysis, and examples of a SIP attainment demonstration and project-level analysis.

The document and many others are online via USEPA's home page:



http://www.epa.gov/

Click on Information Sources, then Publications, then Publications on the EPA site, then Air Quality Planning and Standards and sort by publication number and look for publication number 454R92006.

Or by direct link:



http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OAR:0991;&rank=4&template=epa

(b) FHWA Background Information

FHWA's online *Environmental Guidebook* contains numerous documents in PDF format on conformity, air quality analysis, and mitigation published since 1989. The Guidebook and other background information and data sources can be found on FHWA's web site:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Natural Environment, then Air Quality.

Or by direct link:



http://environment.fhwa.dot.gov/guidebook/chapters/V1ch1.htm

Topics include:

- Conformity.
- Microscale and Regional Modeling and Emission Models.
- Congestion Mitigation and Air Quality Improvement Program (CMAQ).
- FHWA Sanction Exemption Criteria (determines which projects can go forward and which grants may be awarded if USEPA imposes highway sanctions under Section 179(b) or Section 110(m) of the Clean Air Act).
- Transportation Control Measures (TCMs) for purposes of conforming to state implementation plans and achieving the NAAQS.

Public information initiative to support state and local government efforts to meet their congestion and air quality goals under ISTEA and CAA.

(c) Other Useful Web Sites

Ecology's home page includes access to information on SEPA, laws and standards, conditions and trends, and permit assistance. Click on "air quality" for air quality regulations, local air pollution control agencies, approved SIPs, and more.

USEPA's home page gives access to a variety of other air quality information, including federal regulations and standards, modeling, and technology transfer.



http://www.epa.gov/

Click on Browse EPA Topics, then Air, then Office of Air and Radiation.

Or by direct link:



http://www.epa.gov/oar/

Best Management Practices for Control of Fugitive Dust **(7)**

Fugitive dust emissions can be prevented and reduced in four basic ways:

- Limiting the creation or presence of dust-sized particles
- Reducing wind speed at ground level
- Binding dust particles together
- Capturing and removing fugitive dust from its sources

Following is a list of BMPs for control of fugitive dust compiled by the Associated General Contractors (AGC) of Washington in the publication, Guide to Handling Fugitive Dust From Construction Projects. Copies of this publication can be requested from WSDOT and Puget Sound Clean Air Agency.

Note that the following control measures are not mutually exclusive. Most situations require the use of two or more methods for any particular situation, and several methods will be employed to handle the variety of situations that make up a particular job. BMPs have been developed for the following:

- Covering Fabric/Other for Erosion Control
- **Dust Suppressants Chemical**
- **Erosion Controls**
- Filter Fabric around catch basin
- Flocculating Agent
- Minimize Disrupted Surface Area
- Paving
- **Quarry Spills**
- Schedule Work: Reschedule work around especially windy days
- **Speed Reduction**

- Street Sweepers
- Vehicle Spillage Reduction
- Water Spray
- Wheel Wash
- Vehicle Scrape

Although water can be one of the main control agents for dust, it is important to plan ahead for water shortages and consider the use of other measures.

For more information on chemical dust suppressants see **Exhibit 425-5** and **Exhibit 425-6**, and the following links:

• Potential Environmental Impacts of Dust Suppressants: Avoiding Another Times Beach, located on USEPA's web site at:



 Techniques for Dust Prevention and Suppression, located on Ecology's web site at:



http://www.ecy.wa.gov/pubs/96433.pdf

425.06 Permits and Approvals

Regional clean air agencies may require air quality permits for the following WSDOT activities:

- Land clearing burns
- Demolition of structures containing asbestos
- Asphalt batching, concrete mixing, rock crushing or other temporary sources (new source construction)

For details on permit requirements, see Section 540.23.

425.07 Non-Road Project Requirements

Air studies for rail projects require a different type of analysis to determine conformity. For information, contact WSDOT's Air Quality, Acoustics & Energy section. Requirements for addressing air quality impacts related to roads and vehicular use to get to ferry and aviation facilities is assumed to be the same as for road projects. For projects involving additional ferry routes or air flight, federal general conformity rules apply. Contact the WSDOT's Air Quality, Acoustics & Energy section for more information.

425.08 Exhibits

Exhibit 425-1 – Conformity Process from Planning to Project-Level Analysis.

Exhibit 425-2 – Air Quality Conformity Guidance – Project-Level Preliminary Screening.

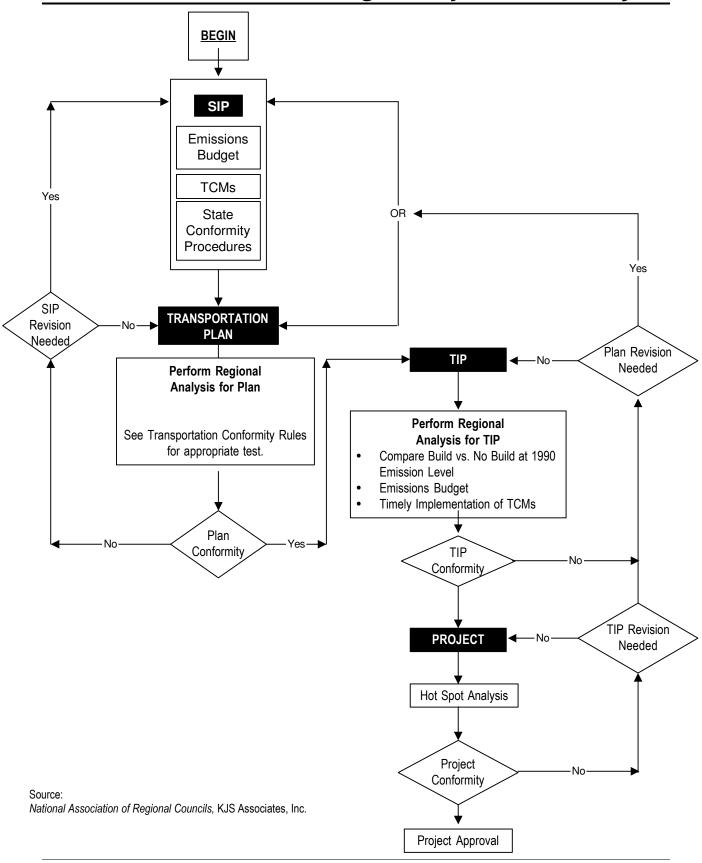
Exhibit 425-3 – Air Quality Discipline Report Checklist.

Exhibit 425-4 – Sample Consultant Scope of Work for Air Quality Studies.

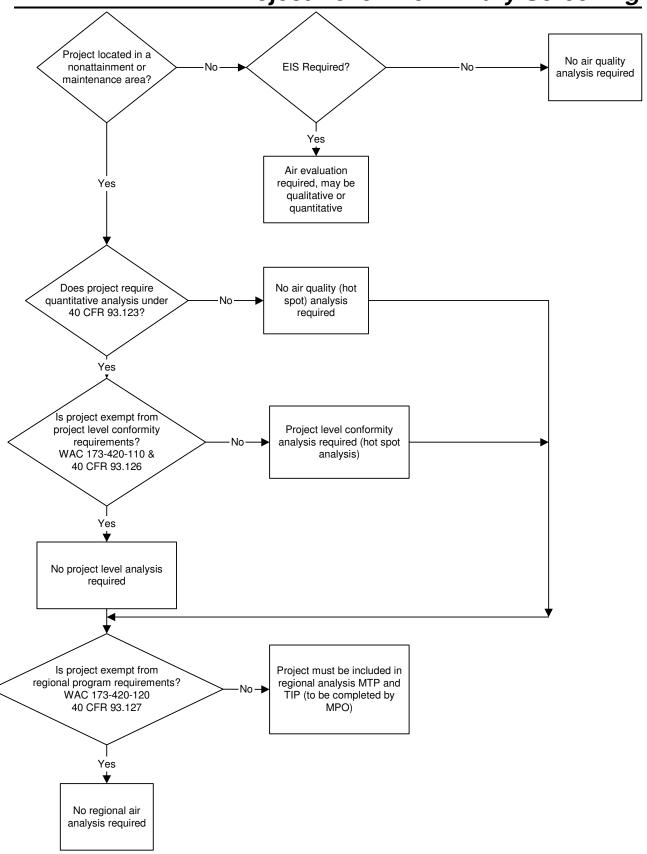
Exhibit 425-5 – Chemical Dust Suppressant Contact Information.

- Fugitive Dust Con (Fact Sheet/Droug	ght).		

Conformity Process from Planning to Project-Level Analysis



Air Quality Conformity Guidance Project-Level Preliminary Screening





Discipline Report Checklist Air Quality

Projec	ct Name	e:			
Conta	ct Nam	e:			
Date 1	Receive	d:			Reviewer:
(SAT	= Satisf	actory;	INC = 1	[ncomp	lete; MIS = Missing; N/A = Not Applicable)
Answe	ers are r	equired	for que	stions t	hat have no N/A box.
Rules inform	(40 CFI nation us	R part 9 sed duri	3 and V	VAC 17 develop	compliance with the Federal and State Air Quality Conformity (3-420). The Air Quality Discipline Report is intended to identify ment of an air quality discipline report. This checklist may be DOT Air Quality section.
l.	Introd	uction			
in the	Air Qual	ity Secti	on of the	e enviro	usions reached, with enough detail so the report can be included nmental document. If this information is available in another ovide those sections to the reviewer to complete the information.
SAT	INC	MIS	N/A		
				A.	Summary of project (including project location/mile post).
				B.	The objectives of the project.
				C.	Narrative of analysis - EPA approved models used.
				D.	Project conformity status.
				E.	Comparison and discussion of the impact status of all alternatives (includes No Build).
				F.	Coordination with federal, state, and local agencies done.
II.	Affect	ed Env	ironme	nt	
SAT	INC	MIS	N/A		
				A.	CADD and/or channelization plan.
				B.	Ambient air quality standards.
				C.	Existing air quality conditions.
				D.	Existing/proposed right-of-way/areas accessible to the public.*
				E.	Compliance status with NAAQS and existing project area attainment status.

SAT	INC	MIS	N/A					
				F.	Current ambient health effects on people (plants and animals when appropriate).			
				G.	Project area meteorology.			
				H.	Health affects of pollutants.			
				I.	Any major terrain features.			
				J.	Project description.			
* These items are not required in the discipline report, but provide data needed to conduct modeling. Modeling outputs must be shown in the discipline report.								
III.	III. Studies and Coordination							
SAT	INC	MIS	N/A					
				A.	National Ambient Air Quality Standards (NAAQS) for nonattainment or maintenance areas affected by project.			
				B.	Project's relation to regional transportation plan and regional TIP.			
				C.	Project's relation to State Implementation Plan (SIP) requirements, including Transportation Control Measures (TCMs) if applicable.			
				D.	Method of air quality analysis.			
				E.	Summary of conformity guidance. When conformity finding required, next three items must be included.			
					1. City specific traffic, emissions, and concentration models used (mesoscale and microscale analysis).			
					2. Assumptions used.			
					3. Map showing modeled receptor locations.			
				F.	Nonattainment and maintenance areas: summary of reference to regional analysis of region transportation plan and TIP.			
				G.	Receptor sites placed per EPA guidance.			
				Н.	Induced traffic growth (method for predicting traffic volumes growth factor, inclusion of other regional projects in projections, traffic report citation).			
				I.	Indirect air quality effects.			
				J.	Modeling performed for existing and project related or project affected Level of Service (LOS) D, E and F intersections.			

SAT	INC	MIS	N/A			
				K.	Results of coordination with appropriate air quality agencies.	
IV.	Projec	ct Data	& Assı	umptio	ns	
		ion is no			eling and may be found in the modeling outputs included	
SAT	INC	MIS	N/A			
				A.	Number and width of lanes.*	
				B.	Peak hour traffic volumes.*	
				C.	Signal timing and traveled speeds.*	
				D.	Level of service for intersections.*	
				E.	Homes, buildings shown on plan sheets, public access points.*	
				F.	Type of roadway (elevated, depressed, at grade).*	
* These items are not required in the discipline report, but provide data needed to conduct modeling. Modeling outputs must be shown in the discipline report.						
17						
٧.	Impac	ts (for	each a	Iternati	ve and no build)	
SAT	INC	MIS	each a N/A	Iternati	ve and no build)	
	-			A.	Qualitative and quantitative analysis of pollutants, per Conformity Guidance.	
SAT	INC	MIS	N/A		Qualitative and quantitative analysis of pollutants, per	
SAT	INC	MIS	N/A	A.	Qualitative and quantitative analysis of pollutants, per Conformity Guidance. Findings of regional TIP quantitative analysis of	
SAT	INC	MIS	N/A	A. B.	Qualitative and quantitative analysis of pollutants, per Conformity Guidance. Findings of regional TIP quantitative analysis of hydrocarbons (HCs) and CO with project included.	
SAT	INC	MIS	N/A	A. B. C. D.	Qualitative and quantitative analysis of pollutants, per Conformity Guidance. Findings of regional TIP quantitative analysis of hydrocarbons (HCs) and CO with project included. Air quality impacts for year of opening. Air quality impacts for horizon year of the regional longrange transportation plan known as the metropolitan	
SAT	INC	MIS	N/A	A. B. C. D.	Qualitative and quantitative analysis of pollutants, per Conformity Guidance. Findings of regional TIP quantitative analysis of hydrocarbons (HCs) and CO with project included. Air quality impacts for year of opening. Air quality impacts for horizon year of the regional longrange transportation plan known as the metropolitan transportation plan (MTP).	
SAT	INC	MIS	N/A	A. B. C. D.	Qualitative and quantitative analysis of pollutants, per Conformity Guidance. Findings of regional TIP quantitative analysis of hydrocarbons (HCs) and CO with project included. Air quality impacts for year of opening. Air quality impacts for horizon year of the regional longrange transportation plan known as the metropolitan transportation plan (MTP).	

VI.	Project Conformity Statement						
SAT	INC	MIS	N/A				
				A.	Project's inclusion in conforming transportation plan and TIP / regional conformity per 40 CFR 93.110 –117.		
				B.	Emissions relationship between build and no build alternatives.		
				C.	Project's contribution to reduction of NAAQS violations (if any).		
				D.	Applicability of CO, ozone, and PM ₁₀ conformity.		
				E.	Hot spot conformity statement.		
VII.	Const	truction	Activi	ty Impa	acts		
SAT	INC	MIS	N/A				
				A.	Impacts.		
				B.	Dust and particulates.		
				C.	Slash disposal.		
				D.	Burning.		
				E.	Odors.		
				F.	Emissions from construction equipment.		
				G.	Emissions from asphalt plants, gravel plants, and other temporary sources. Discuss permit requirements.		
ľ	MITIGA	TION					
SAT	INC	MIS	N/A				
				A.	Mitigation measures and commitments during construction.		
				B.	Mitigation measures considered or available but not included.		
VIII.	Figure	es, Map	s, and	Tables			
SAT	INC	MIS	N/A				
				A.	Vicinity map.		
				B.	Ambient air quality standards.		
				C.	Designated nonattainment or maintenance areas for criteria pollutants.		

SAT	INC	MIS	N/A		
				D.	Receptor group locations.
				E.	Ozone trends (recommended but not mandatory, after June 14, 2005 this is N/A because the boundary will be revoked).
				F.	Carbon Monoxide trends (recommended but not mandatory).
				G.	List of Receptors with Existing, Build, and No Build CO levels.
				H.	Receptor List of Existing, Build, and No Build CO exceedances (with values).
IX.	Sumn	narv			
					nclusions reached. The summary should include enough detail so h only minor modification. The summary should include:
SAI			N/A	A.	Summary conformity statements (regional and local as appropriate).
				B.	Impacts of all alternatives including the no-build alternative.
				C.	Required mitigation.
				D.	Comparison of alternatives based on impacts and effectiveness of design alternatives and construction phase mitigation.
Genera	al Com	ments:			

Sample Consultant Scope of Work for Air Quality Studies

The air quality impact analysis will follow the WSDOT Environmental Procedures Manual (EPM) guidelines, except when directed otherwise by this contract.

Air quality impacts will be assessed, quantified, and described for:

- 1. The Existing Year
- 2. The Year of Opening No Build
- 3. The Year of Opening Build
- 4. The Horizon Year of the long-range Metropolitan Transportation Plan (MTP) No Build
- 5. The Horizon Year of the long-range Metropolitan Transportation Plan (MTP) Build

All build alternatives will be evaluated.

The existing air quality and pollution sources will be described.

Air quality impacts from construction activities and vehicles operating on the roadway will be evaluated qualitatively. Temporary air quality impacts during construction will be examined, and mitigation measures to control fugitive dust will be discussed referencing the Memorandum of Agreement with the Puget Sound Clean Air Agency regarding fugitive dust in Short Term Mitigation measures. This agreement requires evaluation and implementation of best management practices.

The long-term impacts from changes in vehicular traffic operating on the roadway will be discussed. Monitoring and modeling of air pollutants other than carbon monoxide (CO) is not proposed.

Studies and Coordination

The air quality analysis will meet the requirements of WAC 173-240 and follow USEPA guidelines. The microscale analysis will be performed to determine carbon monoxide (CO) concentrations using the USEPA CAL3QHC Version 2 or other USEPA approved computer models (the mesoscale analysis is done on transportation projects by the Puget Sound Regional Council as part of the TIP analysis). Vehicular emissions will be computed by using the USEPA's latest emission factor algorithm – MOBILE6 or later version as required by the USEPA. The intersections selected for modeling and the corresponding receptor siting will be based on level of serve (LOS) in accordance with the most recent reversion of the federal conformity rule 40 CFR 93. Potential air quality impacts would be evaluated for all LOS D, E, and F intersections that would be affected by the proposed project. Some screening of the number of intersections may be accommodated on a case-by-case basis in consultation with the WSDOT Air Quality section. Maximum one-hour and eight-hour CO concentrations will be estimated at receptor sites for each alternative (including the no-build), for peak traffic periods, for existing, year of opening, and the Design year. The results will be compared to the State and National Ambient Air Quality Standards (NAAQS).

The CONSULTANT will include the following traffic (as collected by the STATE) and modeling information for all study years, as defined above, for the Air Quality Discipline Report:

- AM and PM peak hour traffic volumes and LOS for all new, modified, and impacted intersections for all alternatives at intersections with signals,
- Description of intersections selected,
- Description of figure showing receptor locations,
- Identification of models used,
- 1-hour and 8-hour maximum pollutant concentrations at each intersection for each modeling scenario.

The conformity analysis will conclude with the project conformity statement. Include the project's inclusion in pertinent conforming transportation plan and conforming transportation improvements program, and relation to transportation control measures. Note the emissions relationship between build and no-build alternatives. Indicate whether the project contributes to the reduction of frequency and severity of violations of NAAQS (if any).

The air quality evaluation shall also include discussion of odors, construction emissions (e.g., fugitive dust), and asbestos if applicable.

Chemical Dust Suppressant Contact Information

Туре	Brand Name	Manufacturer	Contact Information	
Freshwater				
Seawater				
Calcium	Calcium Chloride Flakes	General Chemical	800-668-0433	
Chloride	Calcium Chloride Liquid	General Chemical	800-668-0433	
	Dowflake	Dow Chemical	800-447-4369	
	Liquidow	Dow Chemical	800-447-4369	
Magnesium	Chlor-Tex	Soil-Tech	702-873-2023	
Chloride	DustGard	IMC Salt	800-323-1641	
	Dust-Off	Cargill Salt Division	800-553-7879	
Sodium	IMC Salt	IMC Salt	800-323-1641	
Chloride	Morton Salt	Morton International	312-807-2000	
Lignin	DC 22	Dallas Roadway Products, Inc.	800-317-1968	
Derivatives	Dustac	Georgia Pacific West, Inc.	360-733-4410	
	Dustac-100	Georgia Pacific West, Inc.	360-733-4410	
	RB Ultra Plus	Roadbind America, Inc.	888-488-4273	
Tree Resin	Dust Control E	Pacific Chemicals, Inc. / Lyman	800-952-6457	
Emulsions	Dustrol EX	Dust Control		
	Road Oyl	Soil Stabilization Products Co. Inc.	800-523-9992	
Electrochemical	Bio Cat 300-1	Soil Stabilization Products Co. Inc.	800-523-9992	
	EMCSquared	Soil Stabilization Products Co. Inc.	800-523-9992	
	SA-44 System	Dallas Roadway Products, Inc.	800-317-1968	
	TerraBond Clay Stabilizer	Fluid Sciences, LLC	888-356-7847	
Synthetic	Aerospray 70A	Cytec Industries	800-835-9844	
Polymer Emulsions	ECO-110	Chem-crete	972-234-8565	
EIIIuisions	Soil Master WR	Environmental Soil Systems, Inc.	800-368-4115	
	Soil Seal	Soil Stabilization Products Co. Inc.	800-523-9992	
	Soil Sement	Midwestern Industrial Supply, Inc.	800-321-0699	
	Top Shield	Base Seal International, Inc.	800-729-6985	
Bituments,	Asphotac	Actin	219-397-5020	
Tars, and Resins	Coherex	Witco Corp.	800-494-8287	
פווופטרו	PennzSuppress-D	Pennzoil-Quaker State Co.	713-546-4000	
	Road Pro	Midwestern Industrial Supply, Inc.	800-321-0699	
Geotextiles	Trevira Spunbound	Hoechst Celanese Corporation		

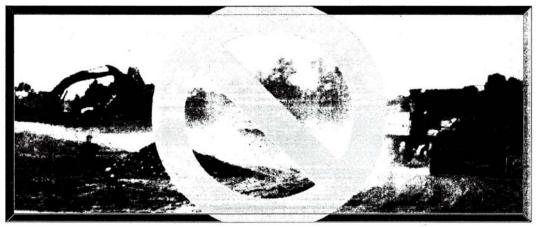
Fugitive Dust Control During the 2001 Summer Construction Season



FACT SHEET

Working Together for Clean Air

Fugitive Dust Control During the 2001 Summer Construction Season



"We challenge contractors to employ creative ways to minimize dust..."

We know that fugitive dust arising from the disturbance or movement of soil is a significant source of air pollution, particularly during the dry summer months. We also know that the availability of water is one of several key dust control measures. What we don't know, is the impact of the statewide drought conditions recently recognized by Governor Locke.

In the event of a water shortage, we expect contractors to continue using best management practices, many of which require little or no water. These include limiting vehicle speed, use of gravel and chemical dust suppressants, quarry spalls, and wheel wash facilities. We challenge contractors to employ creative ways to minimize dust emissions.

We also realize that there may be situations where water is the only practical solution for preventing dust emissions. In such instances, and where only limited water is available, priority considerations should be gien to controlling dust for safety (ex, driver visibility) and health reasons.

A brochure (enclosed) published by the AGC of Washington Education Foundation – "Guide To Handling Fugitive Dust From Construction Projects"—discusses best management practices for controlling fugitive dust. We urge you to examine that brochure and determine which management practice(s) work best for keeping the dust down AND conserving water. Choosing the right approach means we can all breathe a little easier this summer.

www.pscleanair.org • 110 Union Street, Suite 500 Seattle, Washington 98101 • 206.343.8800 • 800.552.3565 • FAX 206.343.7522 May 2001

430.01 Introduction430.02 Overview of Environmental Requirements430.03 Exhibits

430.01 Introduction

Many of WSDOT's projects involve impacts on water resources. Applicable federal, state, and local laws; regulations; policies; and plans and studies must be completed before permits can be applied for and the project can go to construction.

Chapter 431 through Chapter 433 cover the range of water resource issues required to be considered by NEPA and SEPA:

- Chapter 431 Water Quality/Surface Water
- Chapter 432 Floodplain
- Chapter 433 Groundwater

430.02 Overview of Environmental Requirements

(1) NEPA and SEPA

The National Environmental Policy Act (NEPA), requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on surface water/water quality, floodplains, and groundwater are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see Chapter 410 and Chapter 411.

(2) Federal Requirements

Federal requirements applicable to water resources, described in **Chapter 431** through **Chapter 433** include:

- Clean Water Act
- Rivers and Harbors Act
- Coastal Zone Management Act
- Endangered Species Act
- Floodplain Management Executive Order

(3) State Requirements

State requirements applicable to water resources, described in **Chapter 431** through **Chapter 433** include:

 Federal Clean Water Act implementation (Section 401 Certification, Section 402 NPDES Program)

- Federal Clean Drinking Water Act implementation (including wellhead protection and underground injection control)
- Federal Coastal Zone Management Act implementation (consistency concurrence)
- Growth Management Act (mandating local protection of critical areas including aquifer recharge areas)
- Shoreline Management Act
- Water Pollution Control Act
- Watershed Planning Law
- Flood Zone Control Act
- Water Quality standards for groundwater

(4) Local Requirements

Local requirements applicable to water resources, described in **Chapter 431** through **Chapter 433** include:

Critical Areas Ordinances (Aquifer Recharge Areas)

430.03 Exhibits

None.

421.01	Turbus discretions
431.01	Introduction
431.02	Applicable Statutes and Regulations
431.03	Policy Guidance
431.04	Interagency Agreements
431.05	Technical Guidance
431.06	Permits and Approvals
431.07	Non-Road Project Requirements
431.08	Exhibits

Key to Icons

── Web site.*

Interagency agreement.

431.01 Introduction

This chapter includes information and requirements for water quality, surface water, stormwater runoff, fill material in wetlands, and construction erosion control and runoff. It focuses mainly on road projects. Policies, procedures, and permit requirements specific to ferries, airports, rail, and non-motorized transport are addressed in Section 431.07. For other water-related issues, see Chapter 432 (Floodplain), Chapter 433 (Groundwater), Chapter 437 (Wetlands), Chapter 452 (Coastal Areas and Shorelines), and Chapter 453 (Wild and Scenic Rivers).

(1) Summary of Requirements

Water quality and other surface water issues that must be addressed during development of WSDOT projects include work in water, shorelines, floodplains, and other critical areas as well as stormwater discharges, interference with stream flows, use of herbicides, and water rights.

WSDOT's Water Quality Discipline Report checklist provides the basis for identifying these issues and available sources of information. Other references, documents, Interagency Agreements, permits, certificates, and approvals included in this section provide background relevant to the WSDOT discipline reports for water quality.

Water quality standards are implemented through Clean Water Act (CWA) Section 401 certifications, water quality modifications, and compliance with the standards in RCW 90.48 and WAC 173-201A. Applications for water quality related permits include the Joint Aquatic Resources Permit Application (JARPA) process, and the National Pollutant Discharge Elimination System (NPDES) permits. Water-related permits, certificates, and approvals are listed in Section 431.06. Details are in Chapter 520 through Chapter 550. See also Sections 432.06, 433.06, 436.06, and 437.06.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

The listing of salmonids under the Endangered Species Act (ESA) has triggered the development of new requirements for water quality issues. Planning processes under the ESA, CWA, and national and state environmental policy acts (NEPA/SEPA) are becoming increasingly integrated. As a result, regulations related to threatened and endangered salmonids are in the process of being incorporated into permits related to the CWA. In turn, WSDOT is incorporating ESA-related issues into its water quality procedures and design standards.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

401 Certification Clean Water Act Section 401, Water Quality Certification AKART All known, available, and reasonable methods of prevention,

control, and treatment

BMP Best Management Practice
Corps U.S. Army Corps of Engineers

CTED Department of Community, Trade, and Economic

Development

CWA Clean Water Act

CZM Coastal Zone Management
CZMA Coastal Zone Management Act
EAP Environmental Assessment Program

ESA Endangered Species Act

FEMA Federal Emergency Management Agency
GHPA General Hydraulic Project Approval

HPA Hydraulic Project Approval

JARPA Joint Aquatic Resources Permit Application

LOP Letter of Permission
MHHW Mean Higher High Water

NOAA National Oceanic and Atmospheric Administration

NOI Notice of Intent

NPDES National Pollutant Discharge Elimination System

NWP Nationwide Permit

OHWM Ordinary High Water Mark or line

SMA Shoreline Management Act
SWDP State Waste Discharge Permit

STMs Short-Term Water Quality Modifications
TESC Temporary Erosion and Sediment Control

TMDL Total Maximum Daily Load USDA U.S. Department of Agriculture

USEPA U.S. Environmental Protection Agency

USFWS U.S. Fish and Wildlife Service

WDFW Washington State Department of Fish and Wildlife

WSF Washington State Ferries

WRIA Water Resource Inventory Area

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Contaminant – Any physical, chemical, biological, or radiological substance or matter that has an adverse affect on air, water, or soil.

Herbicide – A chemical designed to control or destroy plants, weeds, or grasses.

Pollutant – Any substance of such character and in such quantities that upon reaching the environment (soil, water, or air), is degrading in effect so as to impair the environment's usefulness or render it offensive.

Surface Runoff – Overland flow of water.

Stormwater – Rainwater that flows over land and into natural and artificial drainage systems. Stormwater runoff is a major transporter of nonpoint source pollutants.

Surface Water – All water naturally open to the atmosphere, such as rivers, lakes, reservoirs, ponds, streams, seas, and estuaries.

Suspended Sediment – Fine material or soil particles that remain suspended by the current until deposited in areas of weaker current. Can be measured in a laboratory as "Total Suspended Solids" (TSS).

Turbidity – A condition in water caused by the presence of suspended material resulting in scattering and absorption of light rays.

Wastewater – Literally, water that has been used for some purpose and discarded, or wasted; typically liquid discharged from domestic residential, business, and industrial sources that contains a variety of wastes.

Watershed – The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point.

431.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to water quality issues. See **Appendix D** for an index of major statutes and regulations referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 431.06**.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on water quality are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see Chapter 410 and Chapter 411.

(b) Clean Water Act

The Water Pollution Control Act, better known as the Clean Water Act (CWA), 33 USC 1251 et seq., provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources. The CWA authorizes the USEPA to administer or delegate water quality regulations covered under the act. In Washington, authority is delegated primarily to Corps and Ecology. USEPA administers CWA implementation on tribal and federal land.

Implementation requirements for CWA Sections 303(d), 305(b), 401, 402, and 404 are described in **Section 431.06**. The law is online at:

http://www4.law.cornell.edu/uscode/

Click on Title 33, then Chapter 26.

Or by direct link:

http://www4.law.cornell.edu/uscode/33/ch26.html

(c) Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) of 1972, 16 USC 1451 *et seq.*, (regulations in 15 CFR 923-930), was enacted to encourage advancement of national coastal management objectives and help states develop and implement management programs. Washington's Coastal Zone Management Program has been approved by the National Oceanic and Atmospheric Administration and is administered by Ecology. Under the program, cities and counties can develop local management plans that must be approved by Ecology. Ecology also provides general program overview and support. For details see **Section 452.02**. The law is online at:

http://www4.law.cornell.edu/uscode/

Click on Title 16, Chapter 33.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/ch33.html

(d) Endangered Species Act (ESA)

This act is administered by USFWS and NOAA Fisheries. Formal consultation under the act is triggered by a federal nexus including permits, funding or actions on federal land, and by the potential harm, harassment, or take of listed species or impacts to their habitat. Informal consultation under Section 10 of the act requires applicants to comply with the ESA even if a federal nexus does not occur. The ESA has relevance to water quality because of listed aquatic species. Please see Section 436.02 for more details. The law is online at:

http://www4.law.cornell.edu/uscode/

Click on Title 16, then Chapter 35.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/ch35.html

USFWS home page:

http://www.fws.gov/

NOAA Fisheries home page:

http://www.nmfs.noaa.gov/

State 5 4 1 (2)

State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on water quality are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapter 410 and Chapter 411.

State Water Quality Laws and Rules (b)

Water quality regulations are mandated by the federal Clean Water Act (CWA). The Water Pollution Control Act (RCW 90.48) is the primary water pollution law for Washington state. Under state statute, discharge of pollutants into waters of the state, is prohibited unless authorized. WAC 173-201A mandates water quality standards for surface waters. All wastes must be provided with all known, available, and reasonable methods of prevention, control, and treatment (AKART) prior to discharge into the state's waters.

To promote compliance with water quality standards, Ecology issues CWA Section 401 certificates of water quality compliance for each project requiring a CWA Section 404 permit, administrative orders for projects not requiring Section 404 permits, National Pollutant Discharge Elimination System (NPDES) individual and general permits, and State Waste Discharge Permits (SWDPs).

The Water Pollution Control Act and state water quality standards are online at:



http://www.ecy.wa.gov/

Click on Laws and Rules, then Index of Laws (RCW) or Index of Rules (WAC), and look under Water Quality.

Or by direct link for RCW 90.48:



Or by direct link for WAC 173-201A:

http://www.leg.wa.gov/wac/index.cfm?fuseaction=chapterdigest&chapte r=173-201A

Shoreline Management Act (SMA) (c)

The goal of Washington's Shoreline Management Act (RCW 90.58) is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The Act establishes a broad policy of shoreline protection, which includes water quality.

The SMA uses a combination of policies, comprehensive planning, and zoning to create a special zoning code overlay for shorelines. Under the SMA, each city and county can adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic, and environmental needs of the community. Master programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Please refer to Chapter 452 and Section 550.02 for more details about the SMA, local Shoreline Master Programs, and Shoreline Substantial Development Permits. The statute is online at:

http://slc.leg.wa.gov/

Click on RCW, then Title 90, then 90.58, Shoreline Management Act. The state guidelines for Shoreline Master Programs can be found at Chapter 173-26 WAC.

Or by direct link for RCW 90.58:

http://www.leg.wa.gov/rcw/index.cfm?fuseaction=chapterdigest&chapter=90.58

Or by direct link for WAC 173-26:

http://www.leg.wa.gov/wac/index.cfm?fuseaction=chapterdigest&chapte r=173-26

(d) Coastal Zone Management Act Certification (CZM)

Ecology includes a CZM consistency response with the CWA Section 401 certification for any work in the 15 coastal counties. For detail, please see Section 540.02 and Section 540.03.

(e) Watershed Planning Law

The watershed planning law (RCW 90.82) is intended to provide more specific guidance on cooperative methods of determining the current water resource situation in each water resource inventory area of the state. It serves to provide local citizens with the maximum possible input concerning goals and objectives for water resource management and development. The law is on-line at:

http://slc.leg.wa.gov/

Click on RCW, then Title 90, then 90.82, Watershed Planning.

Or by direct link:

http://www.leg.wa.gov/rcw/index.cfm?fuseaction=chapterdigest&chapter = 90.82

431.03 Policy Guidance

(1) Washington State Transportation Commission

The Transportation Commission's Policy Catalog states that WSDOT will "minimize the impact that construction, operation and maintenance of transportation facilities has on the state's surface and groundwater" and specifically "to minimize and control levels of harmful pollutants generated by transportation activities from entering surface and groundwater resources."

(2) Other Policy Guidance

For other policies related to wetlands, please see Section 437.03.

431.04 Interagency Agreements

(1) Implementing Agreement – Water Quality Standards (1998) – being revised

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards, currently being revised, is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions, concrete work, erosion control, hazardous spill prevention and control, spill reporting, and activity-specific provisions to help ensure compliance with state water quality standards for erosion control in new roadway and bridge construction projects.

The 1998 Water Quality Implementing Agreement replaced the 1997 WSDOT General Short-Term Water Quality Modification and the 1988 MOA with Ecology. Both agencies expect that implementation of this agreement will result in compliance with the state's Water Quality Standards (WAC 173-201A). Ecology is notified of projects through submittal of a JARPA application if applicable, or through telephone/e-mail contact for:

- All new construction projects requiring a CWA Section 401 Water Quality Certification.
- Projects that are large, contentious, or involve a significant amount of work in the water.
- Any project that does not comply with conditions listed in the agreement.

Water quality standards are implemented and maintained by the JARPA process, NPDES permits, WSDOT's 2004 *Highway Runoff Manual*, and appropriate BMPs.

This 1998 implementing agreement does not allow for a modification of water quality standards. However, short-term water quality modifications might still occasionally be issued by Ecology's Federal Permits Unit for in-stream work where implementation of all available BMPs may not be enough to ensure conformance with state water quality standards (see Section 540.25, Other State Approvals – Temporary Exceedance of Water Quality Standards). Monitoring and testing of water quality is required during construction.

When the agreement supersedes the need for a Hydraulic Project Approval (HPA) permit, it is courteous for WSDOT to inform WDFW of work performed in waterways (see the MOU on work in water courses, described below).

The agreement is online at the WSDOT's ESO Compliance Branch web site or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/docs/impagfin.pdf

Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards, February 13, 1998.

(2) Compliance Implementing Agreement – Water Quality Standards (2004)

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals. It defines the elements needed to increase compliance for WSDOT and WSDOT contractors. For details, see Section 610.03.

(3) Signature Agency Committee Agreement to Integrate Aquatic Permit Requirements into NEPA/SEPA Process

The Signatory Agency Committee (SAC) Agreement applies to all WSDOT projects requiring a Corps of Engineers (Corps) Individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS. Signatories are FHWA, NOAA Fisheries, Corps, USEPA, USFWS, Ecology, WDFW, and WSDOT. These agencies aim to integrate conditions of aquatic related permits and approvals, with the NEPA/SEPA processes at the planning, programming and project development stages. The SAC process involves requests for resource agency "concurrence" at critical point in the NEPA process. For details, see Section 411.06.

(4) Alternative Mitigation Policy Guidance Interagency Implementation Agreement
The purpose of this February 2000 agreement between WDFW, Ecology, and
WSDOT is to describe consensus on mitigation policy among the agencies
responsible for aquatic resource mitigation. See Section 437.04 for details.

(5) Memorandum of Agreement between WDFW and WSDOT - Construction of Projects in State Waters

This June 2002 MOA between WSDOT and WDFW, is designed to provide a mutual understanding between the agencies for application and acquisition of Hydraulic Project Approvals, and establishes procedures to comply with the Hydraulic Code Rules (WAC 220-110). Revisions to this agreement are to be completed by December 2005. See Section 436.04 for details.

(6) Other Interagency Agreements

For other agreements related to water resources please see Section 436.04 (fish and wildlife) and Section 437.04 (wetlands). See Appendix E for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-making Process.

431.05 Technical Guidance

(1) Water Quality Discipline Report

The purpose of the Water Quality Discipline Report is to provide information required for EAs, EISs, and a variety of water quality permits, certificates, and approvals. Discipline studies characterize water quality in a watershed context that includes surface water, groundwater, wellhead protection areas, source water protection areas, soils and topographic features affecting basin hydrology, existing water quality conditions, and land use patterns affecting runoff

conditions. Unique aspects of individual permits are called out under the discussion of permits.

(a) Determining the Necessary Level of Effort

It is important to properly determine whether or not a discipline study is necessary and the appropriate level of detail to include in discipline studies.

A Water Quality Discipline Report is needed when a proposed project could have a significant impact to receiving waters by:

- Increasing the amount of pollutants discharged to receiving waters
- Increasing peak runoff flows to receiving waters
- Involving construction within water bodies, their buffers or floodplains.

The Water Quality Discipline Report may also be necessary in cases where build options reduce the amount of pollutants or peak plows but there are significant differences in the benefits between the alternatives.

A Water Quality Discipline Report is not needed if the project does not have the potential to significantly impact receiving waters. Generally, this is true for projects that do not:

- Increase the acreage of impervious surfaces impervious surfaces
- Increase traffic capacity
- Present a significant risk or eroded sediments or spilled pollutants from entering receiving waters
- Involve work in water bodies, their buffers or floodplains

If a Discipline Report is not needed, document the rationale in a technical memo and add to the project file.

If it is not clear whether significant water quality impact are likely, a preliminary investigation should be performed using the guidance for preparing discipline studies outlined below. If at any point, it becomes apparent that there will be no significant impacts or differences among the alternatives, the investigation can be terminated. The rationale for determining that a full Discipline Report is not needed should be documented in a technical memo and added to the project file.

(b) Preparing the Discipline Report

Exhibit 431-1 through Exhibit 431-4 constitute WSDOT's guidance for preparing water quality discipline studies. The Water Quality Discipline Report Checklist (Exhibit 431-1) helps ensure that all project-related water issues are adequately considered. The Surface Water Quality Discipline Study Guidance document (Exhibit 431-2) provides detailed instructions on how to write Water Quality Discipline Studies. The Information Source Listing for WSDOT Water Quality Discipline Reports (Exhibit 431-3) is an additional resource to help report writers more quickly identify information sources. The Quantitative Procedures for Water Quality Impact Assessments (Exhibit 431-4) describes the methodology for estimating water quality impacts based on WSDOT highway runoff data.

(2) Other WSDOT Guidance and Technical Resources

(a) WSDOT Highway Runoff Manual

The *Highway Runoff Manual* (M 31-16, March 2004) summarizes the stormwater management requirements and describes approved methods of managing stormwater runoff known as Best Management Practices (BMPs). The *Highway Runoff Manual* contains sections on stormwater planning, BMP selection, design, and computational standards, economic and engineering feasibility, temporary erosion and sediment control planning, spill prevention control and countermeasures planning and water quality monitoring. The NPDES Construction Stormwater General Permit that was issued in November 2005 includes water quality monitoring requirements. Chapter 6 of the Highway Runoff Manual will be updated by the Spring of 2006 to reflect the new requirements.

The Washington State Department of Ecology conditionally approved the 2004 *Highway Runoff Manual* as equivalent to its Stormwater Management Manuals for Western and Eastern Washington (SMMWW and SMMEW) for compliance with Ecology permits (40 CFR 402; WAC 173-270). Permit conditions are attached to the manual.

The manual and associated updates can be accessed online at:

http://www.wsdot.wa.gov/

Click on Environmental, then 2004 Highway Runoff Manual under Current Events.

Or by direct link:

http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/HighwayRunoff2004.pdf

(b) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available databases relevant to water quality include water resource inventory areas (WRIAs) and sub-basins, major shorelines, CWA Section 303(d) Impaired Waters, NPDES permit areas and sites, and stormwater outfalls on State Routes. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(3) FHWA Guidance

(a) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents. For water quality, an EIS should identify roadway runoff or other nonpoint source pollution that may have an adverse impact on sensitive water resources such as water supply reservoirs, groundwater recharge areas, and high quality streams. The Water Quality Discipline Report is intended to meet the requirements of the FHWA Technical Advisory. For details, see FHWA's web site:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(b) FHWA Watersheds, Water Quality, and Stormwater Runoff

Abstracts of documents produced by or for the FHWA regarding water quality, stormwater runoff, and watersheds are available online. These include the *National Highway Runoff Water-Quality Data and Methodology Synthesis*, USEPA's site on the Clean Water Initiative, basic definition of watershed and watershed management, USEPA's Surf Your Watershed, and FHWA documents, brochures, and other products.

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Natural Environment, then Water Quality and Stormwater Runoff, or also Watersheds.

Or by direct link for Water Quality:

http://www.fhwa.dot.gov/environment/h2o.htm

Or by direct link for Watersheds:

http://www.fhwa.dot.gov/environment/h2o_shed.htm

(c) FHWA Environmental Guidebook

FHWA online Environmental Guidebook contains several guidance documents and federal MOAs on topics related to water quality, the Clean Water Act, and coastal zone management.

Available via FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook Or by direct link:

http://environment.fhwa.dot.gov/guidebook/index.htm

(4) Ecology Guidance

(a) Water Quality Program Policy and Procedures

These water quality rules are pursuant to WAC 173-201A-400, which eliminates the need for short-term water quality modifications (STMs). The revisions require the use of BMPs to meet water quality standards. See Ecology *Water Quality Program Policy 1-19 and Procedure 1-20*, August 1998.

(b) Impaired and Threatened 303(d) Waterbodies

Washington State is required by the CWA Section 303(d) (40 CFR 130.7) to identify its polluted water bodies every two years and submit the 303(d) list to USEPA. The list is comprised of "water quality limited" estuaries, lakes, and streams that fall short of state surface water quality standards, and are not expected to improve within the next two years. USEPA requires the state to set priorities for cleaning up threatened waters and to establish a Total Maximum Daily Load (TMDL) for each. A TMDL, or water cleanup plan, entails an analysis of pollutant loadings to determine how much pollution a waterbody can take and still remain healthy for its intended beneficial uses. The cleanup plan also includes recommendations for controlling the pollution and a monitoring plan to verify compliance with established TMDLs. For certain waterbodies, TMDLs have been set; for others, TMDLs are being developed by Ecology.

Once developed, the TMDLs are tied to Corps Section 404 and 401 water quality permit requirements.

Ecology's web site provides access to a list of approximately 650 waterbodies currently identified as impaired or threatened. The list identifies the locations of the waterbodies, the water quality standards each exceeds, and by how much the standards are exceeded.

Washington's Final 2002/2004 Section 303(d) list of Impaired and Threatened Waterbodies is online via:

http://www.ecy.wa.gov/

Click on Programs, then Water Quality, Data Sources, then Washington State's Water Quality Assessment [Section 303(d) List] Surface Waters Information, then Section 303(d) List.

Or by direct link:



Internal WSDOT users can view 303(d) listed water bodies at:

GISOSC\GEODATA\maps\100K\DOE\303D\

(c) Water Quality 305(b) Assessment

Washington State is required by the CWA Section 305(b) to prepare a water quality assessment report every five years and submit it to USEPA. In addition, USEPA requires the state to submit certain assessment data annually for compilation in a national report. The requirements are administered by Ecology.

For access to the data and a description of requirements for ecoregions, stream/river basins, estuaries, and lakes, refer to the Washington State Water Quality Assessment Section 305(b) reports on Ecology's web site:

http://www.ecy.wa.gov/

Click on Programs, then Water Quality, then Water Quality Assessments, then 305(b) Report Information

Or by direct link:

http://www.ecy.wa.gov/programs/wq/303d/305b_report/305b-index.html

(d) Watershed Basin Reports and Action Plans (Local or Inter-Jurisdictional Plans)

Many watershed and basin plans include specific recommended action items on priority environmental issues such as fixing or repairing fish passage barriers. The Water Quality Discipline Report should address the guidance outlined in watershed/basin action plans.

Some plans are listed under Ecology's Watershed Planning web site below; others are available from local jurisdictions.

http://www.ecy.wa.gov/

Click on Programs, Water Quality, Watersheds, then Watershed Planning Or by direct link:

http://www.ecy.wa.gov/watershed/index.html

(5) U.S. Army Corps of Engineers Water Protection Guidance

The Corps of Engineers (Corps) regulatory program concerns not only the integrity of traditional navigable waters, but also the quality of waters of the United States, from wetlands to the territorial seas. Corps regulatory procedures are online at the Corps Seattle District web site:

http://www.nws.usace.army.mil/index.cfm

Click on Regulatory/Permits. Also click on Environmental Resources Section.

Or by direct links:

http://www.nws.usace.army.mil/publicmenu/menu.cfm?sitename=reg&pagename=home_page

Or:

http://www.nws.usace.army.mil/ers/index.html

431.06 Permits and Approvals

Each water quality permit or approval listed in this section should be considered for relevance during design and environmental review. See previous sections in this chapter for policies and other guidance related to these permits. See **Appendix F** for a complete summary of permits and approvals that may be applicable to WSDOT projects.

WSDOT's Water Quality Discipline Report should provide the information needed to satisfy most permit requirements. If WSDOT is in compliance with water quality permits, then it is presumed to be in compliance with water quality standards.

Permits relating to Water Quality are addressed in the following sections:

Federal

• Section 520.02 – Section 404 Permit

Tribal

• Section 530.03 – Tribal consultation or approval required under federal statutes: Clean Water Act Section 401 (Chehalis and Puyallup)

State

- Section 540.02 Section 401 Water Quality Certification
- Section 540.03 Coastal Zone Management Consistency Certification
- Section 540.04 NPDES Construction Stormwater Permit
- Section 540.05 NPDES Municipal Stormwater Permit
- Section 540.06 NPDES Sand and Gravel Permit
- Section 540.07 NPDES Industrial Stormwater Permit
- Section 540.08 Other NPDES Programmatic Permits
- Section 540.13 Isolated Wetlands Administrative Order
- Section 540.15 Hydraulic Project Approval
- Section 540.16 Aquatic Lands Use Authorization
- Section 540.21 On-site Sewage Facility Permit
- Section 540.25 Other State Approvals (Temporary Exceedance of Water Quality Standards)
- Section 540.25 Other State Approvals (Dam Construction Permit, Reservoir Permit)

Local

- Section 550.02 Shoreline Management Permits
- Section 550.03 Floodplain Development Permit
- Section 550.04 Critical Areas Ordinance Approval

431.07 Non-Road Project Requirements

(1) Ferries

Surface water treatment for portions of WSF terminals is often difficult because of the confined areas, and because most of the docks slope toward the water.

(a) Interagency Agreement

The 1998 Water Quality Implementing Agreement between Ecology and WSDOT regarding compliance with Washington surface water quality standards, currently being revised, includes activity-specific conditions that apply to the ferry system. Such activities include ferry terminal transfer span cleaning and painting activities, and work on existing ferry structures. The agreement is described in Section 431.04 and can be located online at:

http://www.wsdot.wa.gov/environment/

Click on Regulatory Compliance, then Water Quality Implementing Agreement (under Environmental Documents).

Or by direct link:



Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards, February 13, 1998.

(b) General Permit Requirements

The ferry system is subject to the same permits as the road system for upland and aquatic projects. The most commonly required road project permits that are also required for ferry projects are Corps of Engineers Section 10 or Section 404 permits, (including NWPs and Letters of Permission), USCG Section 9, HPA, and shoreline permits. These permits are typically obtained through the JARPA process. WDFW regulates areas below OHWM in salt water. A few WSF terminals and other facilities have NPDES general permits. Please see Section 540.04 through Section 540.08 for more details about these permits.

In order to comply with these permit requirements, it is important to know the accurate distance from the shoreline to the project. For marine water the shoreline is measured from the mean higher high water (MHHW) and for freshwater it is measured from the ordinary high water mark (OHWM) or line.

(c) NPDES Stormwater Industrial Permit

This permit for stormwater discharges associated with industrial activities is required for WSDOT ferry facilities that provide fueled vehicles to remove stalled vehicles from docks. See Section 540.07 for details.

Development of a Stormwater Pollution Prevention Plan (SWPPP) that identifies BMPs to prevent surface water and groundwater pollution is the most significant permit requirement. WSDOT's 2004 *Highway Runoff Manual* (M31-16) is the primary document used for selection of BMPs.

(2) Airports, Rail, and Non-Motor

Airport, rail, and non-motorized projects are generally subject to the same water quality policies, procedures, and permits as for road projects.

In rail projects, railroad fills, including ties, rails, and structures over streams are considered impervious. To prevent materials falling off trains into waterbodies, enclosed structures must be used to transport materials.

431.08 Exhibits

Exhibit 431-1 – Water Quality Discipline Report Checklist.

Exhibit 431-2 – Surface Water Quality Discipline Report Technical Guidance.

Exhibit 431-3 – Information Source Listing for WSDOT Water Quality Discipline Reports.

Exhibit 431-4 – Quantitative Procedures for Water Quality Impact Assessments.

Water Quality Discipline Report Checklist

Projec	t Name:	:			Job Number:		
Contac	et Name	e:					
Date R	te Reviewed: Reviewer:						
(SAT :	(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)						
Answers are required for questions which have no N/A box.							
I. Purpose and Need for the Action							
SAT	INC	MIS	N/A				
				A.	Purpose and need for the project to include what the project entails and why it is being conducted. (It is critical that the project description, and purpose and need are consistent with other discipline reports.)		
				B.	Scope of the project and final use of the discipline study.		
				C.	Relevant background information on the project along with an identification of entities with vested interests.		
II.	Descr	iption c	of Alter	natives			
SAT	INC	MIS	N/A				
SAT		MIS	N/A	A.	Succinct description of each alternative being evaluated, including the no-action or no-build alternative. Include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with each action.		
_			N/A	A. B.	including the no-action or no-build alternative. Include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with		
_			N/A		including the no-action or no-build alternative. Include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with each action. Summary of differences between alternatives (as they		
				В. С.	including the no-action or no-build alternative. Include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with each action. Summary of differences between alternatives (as they relate to surface water resources). Map(s) or figure(s) showing alternatives and project boundaries.		
III. The puresour	Studie arpose oces used	Es, Coo	rdination is	B. C. on, Met	including the no-action or no-build alternative. Include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with each action. Summary of differences between alternatives (as they relate to surface water resources). Map(s) or figure(s) showing alternatives and project		
III. The puresour	Studie arpose oces used	Es, Coo	rdination is	B. C. on, Met	including the no-action or no-build alternative. Include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with each action. Summary of differences between alternatives (as they relate to surface water resources). Map(s) or figure(s) showing alternatives and project boundaries. Schods, and Regulations vide adequate evidence of the background work and approach taken. This includes a review of rules and		
III. The puresour regular	Studie arpose of ces used tions an	es, Coo	rdination is ify the aroposed	B. C. on, Met	including the no-action or no-build alternative. Include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with each action. Summary of differences between alternatives (as they relate to surface water resources). Map(s) or figure(s) showing alternatives and project boundaries. Schods, and Regulations vide adequate evidence of the background work and approach taken. This includes a review of rules and		

SAT	INC	MIS	N/A			
					2.	List all reports and data sources acquired and contacts made during project development.
					3.	Summarize those data sets or reports most pertinent to the project and how they will be used for the analysis and why they were selected.
				В.	projec	fy the rules and regulations that are relevant to the ct and how they relate to stormwater and future water conditions:
					1.	WSDOT Plans, Programs, and Policies.
					2.	Growth Management Act and Comprehensive land use plans (review GMA restrictions limiting development).
					3.	Local basin plans, watershed protection plans, watershed analysis, etc.
					4.	Critical areas ordinances.
					5.	Wellhead/aquifer protection plans. (Refer to groundwater discipline study.)
					6.	Combined sewer outfall reduction plans.
					7.	Total Maximum Daily Loads (TMDLs).
					8.	Limiting Factors Analysis, Habitat Conservation Plans, 4D rules, or relevant biological assessments.
					9.	Local Shoreline Plans and Ordinances.
					10.	Shellfish Closure Response Plans.
VI.	Projec	ct Area	Then a	and Nov	M.	
V 1.	rioje	CI AICA	THEIT	and NO	VV	
	evaluat					ent and overlaying built environment from which impacts and focus should be commensurate with the level of impacts
SAT	INC	MIS	N/A			
				A.	Descr	ription of natural framework to surface water quality.
					1.	Description of general topography and soils. Geologic setting, slopes, hazardous areas, soil types, soil drainage, waterholding characteristics and erodability. (Refer to geology discipline report, if available).
					2.	Description of climate.
П	П			B.	Descr	ription of Surface Water Resources.

SAT	INC	MIS	N/A		
				1.	Identify basin, sub-basin, and project boundaries.
				2.	Identify WRIA(s).
				3.	Summary of available sampling data and assessment of its adequacy.
				4.	Stream locations and typing.
				5.	Water quality classifications standards and beneficial uses.
				6.	CWA 305 (d) listed waters. Identify the phase of Ecology listing, i.e., is there a TMDL plan in place, under development, or in the implementation phase?
				7.	Source identification for existing and/or historical water quality problems (point and nonpoint source pollutants).
				8.	Stream channel features (width, depth, riparian vegetation, bank condition, flood storage capacity, off-channel habitat, existing bridges, piers, etc.).
				9.	Identify existing drainage pathways and wastewater/ stormwater outfall locations. Quantify existing impervious surface.
				10.	Identification of water quality factors that are limiting factors to local fisheries.
				11.	Surface water hydrologic features (discharge rates, minimum instream flows or other limits).
				12.	Lakes (water quality characterization; sediment toxicity, limiting factors; existing management strategies, restoration efforts, etc.).
				13.	Marine waters (tidal and current patterns, flushing rates for estuarine systems, etc.).
				14.	Aquatic ESA issues.
				15.	Description of existing sediment quality and contamination.
				16.	Antidegradation analysis, as specified in the Antidegradation Policy (40 CFR 131.12).
				17.	Reference to wetland report and possible summary of key related issues.
				18.	Reference to groundwater report and possible summary of key related issues.

SAT	INC	MIS	N/A			
					19.	Reference to floodplain report and possible summary of key related issues.
					20.	Reference to fisheries report and possible summary of key related issues.
				C.	Other	r issues and constraints.
					1.	Describe public and private water supply sources.
					2.	Describe project area wastewater removal systems.
					3.	Spill data (historical record of major spills, locations, extent, etc.).
					4.	Wellhead protection areas (in relation to project boundaries) and identified aquifer recharge areas.
					5.	Groundwater contamination and remediation actions.
V.	Envir	onment	al Con	seguer	ices (f	ormerly called Impacts and Mitigation Sections)
include	ed for all	signific	ant imp	acts.		d on a watershed basis. A summary statement should be
SAT	INC	MIS	N/A			
				A.	Evalu	ly identify all significant project consequences. nate construction impacts for each alternative, dering:
					1.	Erosion and sedimentation potential and predicted impact on water quality and seasonal aspects of the potential affect (e.g., turbidity, suspended solids, nutrients).
					2.	Describe all in-water, over-water or near-water work. Describe the Temporary Exceedances of water quality standards and mixing zone limits.
					3.	Work near identified sensitive areas (e.g. steep slopes, shoreline, erosion hazard zone, etc.).
					4.	Availability of short-term water right permits for construction activities in areas subject to low flow conditions restrictions.

SAT	INC	MIS	N/A			
					5.	Seasonal conditions and impacts on water quality (low dissolved oxygen levels, high temperatures, algae blooms, reduced flows, etc.).
					6.	Clearing and grading impacts.
					7.	Potential impacts associated with project staging areas.
					8.	Risks to municipal sewer and water supply lines.
					9.	Refer to Groundwater study for potential impact to groundwater quality and sole source aquifers from contaminant sources.
					10.	Refer to Hazardous Materials study for information on sediment quality and contamination sources.
					11.	Spill potential and spill control response BMPs.
				B.		nate operational impacts for each alternative, dering:
					1.	Impacts of projected average daily traffic (typical highway runoff pollutants, projected loadings, impacts to receiving water bodies, etc.).
					2.	Maintenance activity impacts (pesticide application, vactor waste disposal, mowing practices, accessibility to maintain BMPs, etc.).
					3.	Effects of impervious surface additions and alterations to surface hydrology (quantify for ESA requirements).
					4.	Seasonal conditions and impacts on water quality (low dissolved oxygen levels, high temperatures, algae blooms, reduced flows, etc.).
					5.	Stormwater sediments as a potential contaminant source.
					6.	Review and refer to the Fisheries study and impacts on biological organisms, including seasonal closures of shellfish harvest areas and impacts to fish habitat and stream structure.
					7.	Potential spillage pathways identified from WSDOT stormwater outfall inventory data (i.e., locations where WSDOT drainage is tightlined to waterbodies, locations where off-site drainage may be tributary to WSDOT systems.
					8.	Reference to groundwater, floodplain, fisheries and wetland impacts reports.

Indirect and Cumulative Effects SAT INC MIS N/A A. Evaluate indirect impacts for each alternative, considering: Nonpoint source problems. 1. 2. Water quantity concerns. 3. Hydrologic impacts due to long-term streamflow impairment and changes in stormwater quantities. 4. Changes in land use patterns along transportation corridor. В. Evaluate cumulative impacts: 1. Evaluate direct impacts on a watershed scale (e.g. П pollutant loading and 303(d) listings, impervious surface increases and stormwater runoff, permanent stream crossings, loss of properly functioning riparian zone). Evaluate indirect impacts on a watershed scale, 2. especially considering the impacts of future development (e.g. changes in stream flow pattern and morphology and overall pollutant loads from land use pattern change indirectly resulting from the project). C. Include a summary of all impacts identified as significant for each alternative. Mitigation A. Conservation Measures Conservation measures are required activities or standard practices that are routinely employed on WSDOT projects to avoid or minimize impacts on water quality and quantity. These activities are often incorrectly considered mitigation measures and should be discussed separately. Some projects are recommended to summarize these required activities in the water quality discipline report, however it is not essential. See Mitigation Measures section of Exhibit 431-2, Technical Guidance, for more information on what qualifies as mitigation and what should be considered required conservation measures. SAT INC MIS N/A Brief description of Highway Runoff Manual or project specific requirements such as Temporary Erosion and Sediment Control and spill prevention measures, groundwater protection, stormwater

treatment and maintenance practices. BMPs that may be installed to treat highway runoff should include a caveat that these facilities

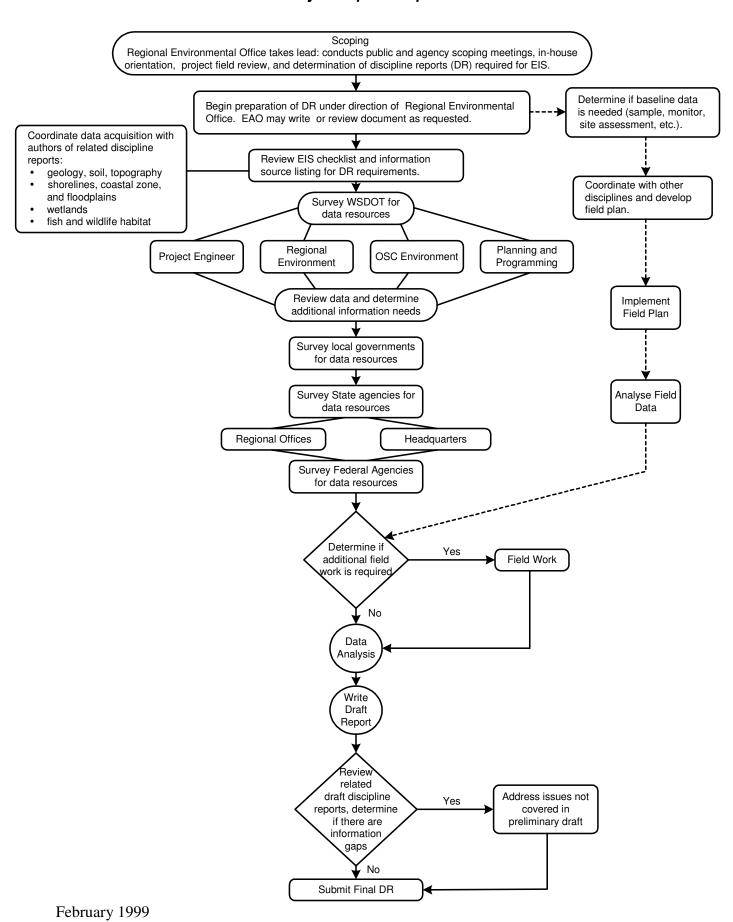
may change as project design progresses.

B. Mitigation Measures

Summarize the activities that reduce the effects that remain despite required conservation measures. Consider measures that avoid, minimize, restore or replace environmental resources. Mitigation measures should be evaluated for site-specific problems and for cumulative impacts related to overall watershed development.

SAT	INC	MIS	N/A		
				A.	Identify mitigation for all significant adverse direct, indirect and cumulative impacts for each alternative. Mitigation strategies include off-site mitigation or restoration options or plans, opportunities for utilizing special/newly researched BMPs, off-site supplemental treatment BMPs, assistance with watershed priorities (set through watershed planning, Low Flow Frequency Analysis, etc.), dovetailing with NPDES research needs, and potential joint projects (such as the 1996 interagency Memorandum of Understanding concerning work in watercourses).
				B.	Summarize project elements that reduce impacts or the potential for impact from construction activities.
					1. Measures to protect water resources above and beyond those required.
					2. Protection measures for sewer lines.
					3. Potential stormwater BMP retrofit opportunities above and beyond required stormwater treatment.
				C.	Identify means of committing to the mitigation measures and probability of their implementation.
Gener	al Com	ments:			

Water Quality Discipline Report Checklist



Surface Water Quality Discipline Report Technical Guidance

A Water Quality Discipline Report is prepared during development of a new transportation project, and is intended to provide information required for EAs, EISs, and a variety of water quality permits, certificates, and approvals. The study must be thorough enough to provide data necessary to recognize and assess water quality impacts of a proposed project. Once the need for a Water Quality Discipline Report has been established as described in **Section 431.05**, the report should be prepared in accordance with this document, and the following other Exhibits:

- Exhibit 431-1: Water Quality Discipline Report Checklist
- Exhibit 431-3: Information Source listing for WSDOT Water Quality Discipline Reports
- Exhibit 431-4: Quantitative Procedures for Water Quality Impact Assessments

The Discipline Report Water Quality Checklist (Exhibit 431-1) helps ensure that all project-related water issues are adequately considered. The checklist is meant to be fairly comprehensive. Not all of the elements listed in the checklist are required, which is why there is a checkbox for NA (Not Applicable). On the other hand, issues that are not addressed in this checklist may be identified for a project. If issues arise that are not referenced in the list, consult with the Environmental Services Office Water Quality Program staff on how to best address them.

The Information Source Listing for WSDOT Water Quality Discipline Reports (Exhibit 431-3) provides contact information to help report writers more quickly identify information sources.

The Quantitative Procedures for Water Quality Impact Assessments (Exhibit 431-4) describes the methodologies for estimating water quality impacts based on WSDOT highway runoff data.

The requirements below are listed by report section headings. The names of some section headings have been changed from previous guidelines to simplify the use of discipline study contents in EIS's that follow the *Reader-Friendly Document Toolkit*. Information on using the toolkit and access to the document are on the Environmental Services Office web site:



Some of the features discussed in the Water Quality Discipline Report refer to related discipline reports, and coordination with the authors of related reports is required to evaluate relevant data.

I. Summary of Conclusions

A brief summary of conclusions relating to the water quality effects of the proposed project appears at the beginning of the report. This summary should highlight the water quality issues that need to be presented in the EIS/EA.

II. Purpose and Need for the Action

This section should present the purpose and need for the project. The purpose of the project should include what the project entails and why the project is being conducted. It is critical that the project description, and purpose and need are consistent with other discipline reports. The scope of the project and final use of the discipline study (e.g., as part of a project-specific EIS) should also be presented. Relevant background information on the project should be included, along with an identification of entities with vested interests. If the purpose and need are thoroughly described in another document, it may be best to reference that document to avoid duplication of effort and ensure consistency.

III. Description of Alternatives

This section should include a succinct description of each alternative being evaluated, including the no-action or no-build alternative. The descriptions of the alternatives should include the proposed actions to be taken under the alternative, and the site-specific requirements and constraints associated with each action. A summary description of the major water quality concerns for the project and the general differences between alternatives as they relate to these concerns should also be included.

Detailed information and maps should be obtained from the Project Office. (Since these details can be expected to change over the course of a project, the Project Office should be contacted on a regular basis to verify details.) The project boundaries should be clearly defined and shown on a map(s) of the area encompassed by all of the alternatives, including the no-build alternative.

WSDOT may develop one report that describes the project alternatives and construction methods rather then repeating the description in each technical or discipline report. Reference such documents when they exist and only include discipline-specific information in the discipline report.

IV. Studies, Coordination, Methods, and Regulations

The purpose of this section is to document the process, resources, and tools used to develop the Surface Water Quality Discipline Reports for use in the water quality section of EAs and EISs and build the framework with which impacts can be analyzed. This section should justify the approach taken in the analysis. The level of detail required for the discipline study will vary with the complexity and planning stage of the project. Generally, the process includes: acquiring reports, plans, and data, making contacts with agencies and stakeholders in the project area, reviewing applicable rules and regulations, and summarizing pertinent information.

The information source listing (**Exhibit 431-3**) includes resources commonly used determine the applicability of **Exhibit 431-1** checklist items. As the resource listing is not exhaustive, additional sources may also be required. All of the resources and contacts identified during this process should be listed in an appendix to the Discipline Report; while only those directly utilized for the analysis should be cited in the report and included in the References section of the report. This section of the Discipline Report should contain a summary of which reports or data sets were relied upon for the analysis and why they were selected. For example, the analyst could choose to not use water quality data that is more than 20 years old when defining the existing environment. This rationale would be included in this section of the Discipline Report.

The resources and reports identified should be used to obtain data for documenting baseline conditions as well as to summarize major concerns and recommendations related to surface water resources in the project area. This summary of concerns and recommendations may be valuable for identifying possible mitigation opportunities. Applicable rules, regulations, plans and policies should also be summarized in sufficient detail to determine project compliance.

This section must identify the tools or methods used for technical evaluation of water quality data (e.g., hydrological methods and pollutant loading calculations). Since the methods described in **Exhibit 431-4** have already been approved for use in Discipline Reports, writers may simply identify the method selected, provide the rationale for selecting that method, and reference the Exhibit. The analyst is not constrained to using the methods in **Exhibit 431-4** if more recent, site specific data is available. However, if a quantification method is selected for use that has not already been described in **Exhibit 431-4**, a detailed description of the method and rationale for its use must be provided.

Discipline studies are based on best available data. In rare cases, however, additional baseline data may be required to document current water quality conditions. Determine early in the project scoping process whether additional data collection activities may be required and notify the Project Office of budget and scheduling revision requirements. Consult with the Environmental Services Office prior to making any commitments to collect baseline data, as

monitoring and quality assurance plans would be required. These efforts should also be coordinated with other disciplines.

If the project is complex or controversial, take steps to obtain informal approval for the analysis approach from the Project Office. If necessary, prepare a technical memo for submittal to the Project Office that describes the list of studies and reports that are to be relied upon for the analysis and a description of the quantification or estimation methods that will be used. The Project Office may choose to send this memo to permitting agencies and other interested parties for comment.

V. Project Area Then and Now (formerly called Affected Environment)

The primary function of this section is to describe the framework against which the effects of the project can be compared. Generally, this framework is easier to write and understand if the analyst first describes the natural environment and then overlays the existing built environment. Consequently, discipline reports typically begin with descriptions of soils, topography, geology, and natural watershed and stream characteristics and sensitive areas or issues associated with them. The description of the existing built environment then should superimpose land use patterns, features associated with land use (e.g., stormwater outfalls, instream structures, impervious area, stream hydrology and morphology changes) and how they influence the natural framework.

There are two issues to consider when developing both the Project Area Then and Now and Environmental Consequences sections: the focus of the analysis and amount of detail required. A soil scientist's description of site soils might include information on plasticity, compressability, pore strength, color, and organic content as well as information on slope, drainage capacity and potential to erode. However, in terms of water quality impacts, it is slope, drainage, and erosion that are important and these characteristics should be the focus of the descriptions. Information provided outside of this focus will simply add to the length of the report without enhancing its value. The level of detail should be correlated to the importance of the item to the project or project area. For example, the description of soils and topography might simply be a few sentences describing a "flat to rolling topography with well-drained loamy soils". Or, if there are steep slopes coupled with poorly drained soils that cause special concerns related to erosion or site drainage problems, then more detail and explanation and possibly a map showing problem areas is warranted. The level of detail required also changes with respect to the project phase. If it is the first phase in planning for a regional road network then most of the checklist items will be addressed with a broad brush when compared to the assessment detail required for comparison of specific road alignment and design alternatives.

By nature the Water Quality Discipline Report will be linked to the Groundwater, Floodplains, Wetlands, and Fisheries Discipline Reports. The Water Quality Discipline Report should be written to minimize redundancy while also insuring that there are no conflicts with the other reports. This requires coordination with authors of the other discipline reports and inclusion of references to those reports. For example, in a project where a stream side channel would lost as a result of project construction, the water quality impact discussion might focus on increased flooding and changes in stream channel characteristics. Impacts to fisheries can be limited to a statement such as: "The potential impacts of side-channel loss on Coho is evaluated in the Fisheries Discipline Report (WSDOT, 2003b)."

VI. Environmental Consequences (formerly called Impacts and Mitigation)

A. Comparison of Alternatives

As described in the Project Area Then and Now section, the focus and level of detail provided should reflect the level of concern associated with the issue. Typically the evaluation of consequences for the first alternative is detailed. It contains information on why the issue is important, how it might affect water quality, and how it was evaluated. For example, in terms of clearing and grading, it would describe the direct relationship between the number of

acres that are cleared and graded and the potential for impact to surface water quality. This information might be further refined to identify those cleared and graded acres that are within 100 feet of surface water, or near steep slopes. The effects associated with remaining alternatives can then be evaluated by comparing them to the first alternative, without reiterating the background information about why the issue is important. This minimizes redundancy and clarifies the comparison between alternatives. Typically short term consequences (those that occur or have the potential to occur during project construction) are addressed separately from long-term effects, for each of the project alternatives.

It is critical to clearly identify all significant project consequences. It is not appropriate to provide a paragraph of text describing the potential for effect and how it will be avoided without providing the reader with a final statement about its significance. A table, graph or list that contains all the potential consequences and their final evaluation result (i.e., significant, insignificant, discountable, minimal), or a one sentence summary statement are typical means of insuring the final effects have been identified.

B. Indirect and Cumulative Effects

Indirect and Cumulative Effects must also be addressed in this section. The following definitions should be used as a guide to defining these:

- Indirect Effects are caused by the proposed project, but occur later in time and are further removed in distance than Direct Effects. An indirect effect of increased stormwater runoff that is directly attributable to the increased impervious surface associated with a project, would be the eventual changes in stream channel morphology as caused by the change in flow pattern.
- Cumulative Effects are direct or indirect effects that result from incremental impacts of the proposed project when added to the other past, present, and foreseeable future actions. These effects can result from individually minor but collectively significant actions taking place over a period of time. The cumulative environmental effects of the proposed actions associated with each alternative should be addressed on a watershed basis in the context of other actions in the surrounding environment. To use the example above, even if the increase in stormwater runoff was considered to be undetectable or insignificant, the project would still contribute to the cumulative effects associated with increased impervious surface in the basin.

Two important factors to consider in determining the potential for Cumulative Effects are: the potential for future development and the type of project. In areas experiencing little growth, an individual highway project will contribute negligibly to Cumulative Effects because of the absence of other development activity. Conversely, in areas of rapid development, a highway improvement can add measurably to aggregated change leading to long-term effects . Capacity improvements, additional interchanges, and construction in a new location generally have greater potential for Cumulative Effects than upgrades of existing facilities.

C. Mitigation Measures

Mitigation measures must be identified for all adverse effects (both significant and non-significant). The analyst should use the following "mitigation sequence" recommended by FHWA when considering mitigation options. The sequence is: avoid \rightarrow minimize \rightarrow repair or restore \rightarrow reduce over time \rightarrow replace.

The analyst is expected to use professional knowledge and expertise to demonstrate mitigation strategies that are based on solving project-specific impacts. Not all project effects can be fully mitigated. If no mitigation options have been identified for a specific effect, this should be stated. All relevant, reasonable mitigation measures that could improve the project should be identified, even if they are outside the jurisdiction of WSDOT. The probability of successfully implementing a mitigation measure should also be addressed in an EIS to ensure that project effects are fairly assessed.

There is often confusion over what constitutes a true mitigation measure. For example, it is tempting to describe stormwater treatment facilities as a project mitigation measure for reducing stormwater impacts. Yet these facilities are not optional; they are a required part of the project design, not mitigation measures. In order to make this distinction clear, it can be an advantage to begin the mitigation discussion with a summary of "conservation measures" included in the project design to avoid and minimize project effects. This could easily segue into a simple summary or bulleted list of the effects that remain despite the conservation measures.

General Guidance to Avoid Common Problems

Discipline report writers should be aware that:

- All WSDOT projects are required to employ an appropriate combination of approved Best Management Practices (BMPs) in accordance with WSDOT's *Highway Runoff Manual* (M31-16, March 2004) as part of their design.
- The BMPs in the *Highway Runoff Manual* constitute All Known and Reasonable Treatment (AKART) and are presumed to effectively treat runoff to meet water quality standards.
- The appropriate combination of BMPs can only be selected after adequate design information has been developed.
- The effectiveness of approved BMPs along with the maintenance needs are evaluated on a programmatic, statewide basis.
- The BMP maintenance activities are established on a programmatic basis.

It is inappropriate for Discipline Reports, which are informational documents, to include statements that could later be interpreted as design, research, or maintenance commitments. The policies governing those activities are set on a programmatic level in accordance with appropriate permits and resources. As such, statements of the following nature that that have been included in past Water Quality Discipline Studies must be avoided:

- Suggestions to evaluate the effectiveness of approved BMPs as mitigation measures.
- Suggestions to monitor the receiving waters as a mitigation measure.
- Stating the type, number or location of BMPs that will be employed.
- Suggestions to use alternative, experimental stormwater treatment approaches.
- Setting of specific maintenance frequencies or methods.

Statements concerning stormwater facilities should primarily reference the programs or guidance documents that establish the criteria for designing and maintaining stormwater facilities and not attempt to describe facilities in detail. This approach helps maintain consistency and accurate expectations, especially when unpredictable changes in treatment facility design or policies related to stormwater are likely.

Information Source Listing for WSDOT Water Quality Discipline Reports

Overview

The following is a source listing for information used to develop a Water Quality Discipline Report. The listing is organized by the following subject categories (column one): water quality, water quantity, aquatic biology, coastal environments, resource management, soils/geology, groundwater, hazardous waste/spill data, wetland, land use management, or land use/topography. Column two identifies the type of information that can be obtained for each subject category (i.e., maps, aerial photos, databases, digital geographic data (GIS), reports, or information contact). Column three identifies the name of the entity providing the information, and column four lists a contact number for the source, if available.

Additional References

The information listing provides a general overview of available data sources, and should not be considered inclusive of all resources potentially available for a major project. Discipline reports prepared for related areas of environmental impact should be reviewed to reduce duplication of data gathering and to ensure water quality issues are adequately addressed for project conditions.

Universities, colleges, and tribal environmental departments are also excellent sources of environmental data. Several sources included in this listing were obtained from a document entitled, *Guidance for Conducting Water Quality Assessments and Watershed Characterizations Under the Nonpoint Rule (Chapter 400-12 WAC)*, published by Washington State Department of Ecology (Publication No. 95-307, February 1995), available from Ecology's Publications Distributions Office 360-407-7472. Ecology's publication contains a more detailed description of several of these data sources, as well as additional information on water quality assessment methods.

SUBJECT	MATERIAL TYPE	SOURCE	CONTACT
Water Quality	Contact	local sewer & water districts	Consult local directory
Water Quality	Contact	local health departments	Consult local directory
Water Quality	Contact	DOH (shellfish, bacterial & red tide data)	Shellfish Programs 360-236-3330
Water Quality	Contact	WDFW (Water Quality impact on fisheries)	Habitat Division 360-902-2534
Water Quality	Contact	PSWQA (ambient monitoring information)	360-725-5444
Water Quality	Contact	Conservation Districts	Consult local directory
Water Quality	Contact	local public works departments (stormwater)	Consult local directory
Water Quality	Contact	WSDOT	Headquarters Water Quality 360-570-6648 or 360-570-6649
Water Quality	WSDOT Highway Runoff Manual	WSDOT	Stormwater Environmental Services 360-570-6657 (Pub. No. M31-16)
Water Quality	Statewide Water Quality Assessment 305(b)	Ecology	Water Quality 360-407-6782 or 509-329-3590
Water Quality	Report: 303(d) List1 (1994). 1995 available Fall '95.	Ecology	Water Quality 360-407-6782 or 509-329-3590
Water Quality	Water Quality Modeling	Ecology	360-407-6485
Water Quality	Drinking water data system	EPA	Water Hotline: 800-426-4791
Water Quantity	Contact & database info for basin characteristics, peak flows, water quality data, etc.	USGS	Consult local directory
Water Quantity	Contact	Ecology	306-407-6557
Water Quantity	Contact	Local public works departments (stormwater & flood control)	Consult local directory
Water Quantity	Contact	Utility districts	Consult local directory
Water Quantity	Contact	Drainage and Irrigation Districts	Consult local directory
Water Quantity	Basin Plans, Drainage Manuals, Comprehensive Drainage Plans	Local public works departments (stormwater & flood control)	Consult local directory

SUBJECT	MATERIAL TYPE	SOURCE	CONTACT		
Resource Management	Contact: permit assistance, site searches, identify key contacts at govt. agencies	Ecology	Permit Assistance Center 360-407-7037 or 800-917-0043		
Soils/Geology	Contact	Local Developers (soil percolation tests)	Consult local directory		
Soils/Geology	Maps: Slope stability maps	DNR	Geology/Earth Resources 306-902-1450		
Soils/Geology	Report: Local Geology	DNR	Geology/Earth Resources 360-902-1450		
Soils/Geology	Report: Soils Surveys	Conservation Districts & USDA NRCS	Consult local directory		
Groundwater	Report: WA State Wellhead Protection Program	DOH	Island, King, Pierce, San Juan, Skagit, Snohomish, and Whatcom Counties 253-395-6768 Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Kitsap, Lewis, Mason, Pacific, Skamania, Thurston, and Wahkiakum Counties 360-753-5953 Adams, Asotin, Benton, Chelan, Columbia, Douglas, Franklin, Ferry, Garfield, Grant, Kittitas, Klickitat, Lincoln, Okanogan, Pend Orielle, Spokane, Stevens, Walla Walla, Whitman, and Yakima Counties - Reclaimed Water Issues 509-456-2457		
Groundwater	Contact	USGS	Water Resources Division 253-428-3600 x2653		
Groundwater	Contact	Ecology	Water Quality 360-407-6635		
Groundwater	Contact	Local health departments, city & county planning/environmental departments	Consult local directory		
Hazardous Waste/Spill Data	Contact	Ecology, & NOAA Hazardous Material Branch (for marine environment)	Ecology Spill Mgt 360-407-7450 NOAA Hazmat 206-526-6317		
Hazardous Waste/Spill Data	Contact	WSDOT (highway spill/accident reports)	360-705-7851		
Hazardous Waste/Spill Data	Contaminated soils maps and underground storage tank locations	WSDOT	360-570-6658		
Wetland	Contact	Ecology (wetland inventories)	360-407-7274		

SUBJECT	MATERIAL TYPE	SOURCE	CONTACT
Wetland	Contact	Corps (Section 10 & 404 Permits, water bodies dredge & disposal permit info.)	General Info 206-764-3742
Wetland	Contact	City and county planning & zoning departments	Consult local directory
Land Use Management	FEMA Maps	Local planning departments	Consult local directory
Land Use Management Contact County assessor/planning/or environmental health offices			Consult local directory
Land Use Management Report/maps: Comprehensive Land Use Plans		City and county planning & zoning departments	Consult local directory
Land Use Management	Contact	Conservation Districts	Consult local directory
Land Use Management	Contact	Puget Sound Regional Council of Governments	206-464-7090
Land Use/ Topography	Aerial photographs	WSDOT	Geographic Services 360-709-5515
Land Use/ Topography	Aerial photographs: Historical photos, 1950's	USDA, ASCS	Aerial Photography Field Office - Sales Branch 801-975-3503
Land Use/ Topography	Aerial photographs: Puget Sound Waterways & Columbia Basin	Corps, Seattle District Office, Survey Branch 206-764-3552	General Info 206-764-3742
Land Use/ Topography	Satellite Imagery (Landsat Data)	EOSAT	301-552-0537 or 800-232-9037

ACRONYMS

Corps	U.S. Army Corps of Engineers	DOH	WA Department of Health
Ecology	WA State Dept. of Ecology	EAP	Environmental Assessment Program
EOSAT	Earth Observation Satellite Company	EPA	U.S. Environmental Protection Agency
FWS	U.S. Dept. of Interior, Fish and Wildlife Service	NRCS	Natural Resources Conservation Service
NOAA	National Oceanic and Atmospheric Administration	PSWQA	Puget Sound Water Quality Authority
USDA	U.S. Dept. of Agriculture	USGS	U.S. Dept. of Interior, Geological Survey
WDFW	WA State Dept. of Fish and Wildlife	WDNR	WA Dept. of Natural Resources

Please forward any corrections or updates to: Richard Tveten, WSDOT Environmental Affairs Office, Water Quality Team at Tvetenr@wsdot.wa.gov

Quantitative Procedures for Water Quality Impact Assessments

Pollutant Loading Estimates

Annual load is calculated when preparing Discipline Reports to assess the impacts of a project. Two methods are described and summarized below that are appropriate for use in the early planning stage of a project or to compare between project alternatives. The methods were selected because they are: (1) based on recent WSDOT highway runoff data, (2) easy to apply or (3) specific to the Pacific Northwest.

Method 1: WSDOT Data-FHWA method.

This method estimates pollutant loads based on highway runoff data collected in western Washington since 2001 (Table 3) Because the data is recent and specific to WSDOT highways, it provides the most accurate estimate of pollutant concentrations flowing from both treated and untreated highway surfaces. The data is representative of runoff from high average daily traffic (ADT) volume highways (90,000-160,000) in western Washington. WSDOT doesn't have sufficient data to estimate annual loads for lower ADT highways across the rest of the state at this time. One can, however, use the high ADT loading rates for lower ADT highways with the understanding that the data represents a worst-case scenario.

The FHWA method and data collected for WSDOT's 2004 Annual NPDES Report were used to generate the annual pollutant loading estimates in Table 3. To use this method, first create a table with the number of acres of highway surface that currently exist and the number of acres of highway surface for each proposed alternative (see Table 4 below). Include the number of acres that will be treated and those that will remain untreated, if applicable, for each alternative. Multiply the acres of treated and untreated surface by the annual pollutant load values, using the means or ranges in Table 3. Add the pollutant loads from the untreated and treated surfaces for each alternative (including no-build or existing conditions) to generate a total pollutant load in pounds per year. Data from the completed table can be directly inserted into discipline studies to compare impacts associated with each alternative.

Table 3: Annual pollutant loads from untreated and treated highway surfaces in lbs/acre

Pollutant	Mean load from Untreated surfaces	Mean load from treated surfaces based on mean BMP effectiveness
Total Suspended Solids	878 (range 350-2000)	41 (range 40-42)
Total Phosphorus	1.3 (range 0.6-2.9)	0.3 (range 0.26-0.32)
Total Copper	0.2 (range 0.1-0.3)	0.05 (range 0.045-0.055)
Total Zinc	1.1 (range 0.5-1.8)	0.26 (range 0.2329)

Table 4: Example table for estimating annual pollutant loads using *Method 1*.

	No-build	Alternative 1	Alternative 2
Roadway Treated (acres)	0	7	12
Roadway Untreated (acres)	20	15	13
Total Roadway (acres)	20	22	25
Annual load of total suspended solids	17,560 lbs/yr	13,454 lbs/yr	11,902 lbs/yr
Annual load of total phosphorus	26.2 lbs/yr	21.6 lbs/yr	20.5 lbs/yr
Annual load of total copper	4 lbs/yr	3.3 lbs/yr	3.1 lbs/yr
Annual load of total zinc	22.4 lbs/yr	18.6 lbs/yr	17.4 lbs/yr

If multiple drainage basins will be affected by stormwater from the proposed project alternatives, modify Table 4 or provide additional tables showing how many acres will be impacted in each basin by each alternative. Once the acreages are known for each basin, repeat the above instructions to quantify the affects of each alternative on each basin in addition to the overall project total.

One disadvantage of *Method 1* is that it doesn't take into account the changes in pollutant loads due to the conversions of previously developed lands. Some land conversions, like replacing commercial land with highways, can result in a net reduction in stormwater pollutants. Accordingly, *Method 1* should be limited to projects that don't include significant conversions of previously developed lands to highways.

Method 2: Application of Literature Values.

The second method uses data, largely collected in the Pacific Northwest in the 1980's, from a variety of land uses to generate pollutant loading estimates (Horner 1992). Table 5 summarizes the range of pollutant yields measured from varying land uses. This method is a very general estimating method and should be noted as such in the methods and discussion sections of a Discipline Report.

An advantage of this method is the ability to capture changes in pollutant loads associated with the conversion of developed areas, like commercial or residential lands into highways. Disadvantages associated with this method are: (1) the data is over 12 years old, and (2) the "road" pollutant estimates are based on a variety of road types and not exclusively on highways. Because the data does not accurately represent highway runoff, use *Method 1* to calculate the loads from treated and untreated highways. The values for "road" in Table 5 estimate the pollutant loading of other roadways (county of city streets, etc.) and should be used to estimate pollutant loads for a project that will convert other roadways (county or city streets, etc.) into WSDOT highway to characterize the change in pollutant loading between the two types of roadway.

Table 5: Annual Pollutant Loading Rates by Land Use

Land Use	Yield Estimate Basis ¹	Total Suspended Solids	Total Phosphorus	Total Nitrogen	Lead ²	Zinc	Copper	Fecal Coliform Bacteria	Chemical Oxygen Demand
	Minimum	250.28	0.53	1.16	0.44	0.16	0.03	2.87E+07	99.76
	Maximum	643.97	1.34	3.12	0.98	0.40	0.08	1.13E+08	257.41
Road ³	Median	447.13	0.98	2.14	0.69	0.28	0.05	7.29E+07	179.03
	Minimum	215.55	0.61	1.43	1.43	1.51	0.98	6.88E+08	272.55
	Maximum	1219.35	0.81	7.84	4.19	4.36	2.85	3.85E+09	1539.11
Commercial	Median	717.00	0.71	4.63	2.76	2.94	1.87	2.27E+09	905.83
	Minimum	53.44	0.41	2.94	0.03	0.06	0.08	1.13E+09	NA
Single Family	Maximum	302.83	0.57	4.19	0.08	0.18	0.24	6.48E+09	NA
Low Density	Median	178.14	0.49	3.56	0.05	0.12	0.16	3.77E+09	NA
	Minimum	86.40	0.48	3.56	0.04	0.10	0.13	1.82E+09	NA
Single Family	Maximum	487.21	0.68	4.99	0.13	0.29	0.40	1.05E+10	NA
High Density	Median	286.80	0.58	5.17	0.09	0.20	0.27	6.07E+09	NA
	Minimum	118.46	0.53	4.19	0.31	0.15	0.15	2.55E+09	89.07
Multifamily	Maximum	672.47	0.72	5.88	0.94	0.45	0.30	1.46E+10	504.13
Residential	Median	395.47	0.62	4.99	0.62	0.30	0.45	8.50E+09	296.60
	Minimum	23.16	0.09	0.98	0.01	0.01	0.02	4.86E+08	NA
	Maximum	130.04	0.12	2.49	0.03	0.03	0.03	2.75E+09	NA
Forest	Median	76.60	0.10	1.78	0.02	0.02	0.03	1.62E+09	NA
	Minimum	71.26	0.01	1.07	0.03	0.02	0.02	1.94E+09	NA
	Maximum	523.72	0.22	6.32	0.09	0.15	0.04	1.09E+10	NA
Grass	Median	308.18	0.12	3.74	0.06	0.09	0.03	6.48E+09	NA
	Minimum	91.74	0.01	1.07	0.00	0.02	0.02	1.94E+09	NA
	Maximum	519.27	0.22	6.32	0.01	0.15	0.04	1.09E+10	NA
Pasture	Median	305.51	0.12	3.74	0.01	0.09	0.03	6.48E+09	NA

NA = Not Available.

This method is straightforward to apply. Estimate the number of acres of land that will be contributing to the point of interest (e.g., a stormwater facility or receiving water) and multiply the area by the values in Table 5 for the pollutants of interest.

For example, the calculation for the median annual load of total suspended solids (TSS) from an untreated 10 acre commercial lot is as follows:

• Median annual TSS Load = (717.00 lb/acre/yr)(10) = 7,170 pounds/year.

Repeat the above calculation for each area subject to applicable land uses in Table 5 other than highways. Use *Method 1* for treated and untreated highway surfaces. Add the annual loads for each land use area to produce total loads for each alternative.

All units are in lb/acre/yr except fecal coliform bacteria which are in number/acre/yr. These values were converted from kilograms/hectare/year in Horton's original table.

² Leaded fuels are no longer used and lead concentrations in runoff have greatly decreased since the time of this study. As such, there is no need to analyze highway projects for lead unless soils are contaminated.

Values in gray estimate the pollutant loading of other roadways (county or city street, etc.). These values should only be used when non-highway roads are being converted into highway. To calculate WSDOT highway pollutant loading use values from Table 3. Reference: Horner 1992.

Table 6: Example table for developing annual pollutant loads for comparison of project alternatives

	No-build	Alternative 1	Alternative 2	Alternative 3
Roadway untreated (acres)	50	100	0	50
Roadway treated (acres)	0	0	100	20
Multi-family residential (acre)				
Note: Median value used	25	0	0	5
Commercial (acres)				
Note: Median value used	25	0	0	25
Total project area	100	100	100	100
Annual load of total suspended solids	112,970 lbs/yr	87,800 lbs/yr	4,100 lbs/yr	89,460 lbs/yr
Annual load of total phosphorus	103 lbs/yr	130 lbs/yr	30 lbs/yr	77 lbs/yr
Annual load of total copper	75 lbs/yr	20 lbs/yr	5 lbs/yr	76 lbs/yr
Annual load of total zinc	146 lbs/yr	110 lbs/yr	26 lbs/yr	139 lbs/yr

If multiple drainage basins will be affected by stormwater from the proposed project alternatives, modify Table 6 or provide additional tables showing how many acres will be impacted in each basin by each alternative. Once the acreages are known for each basin, repeat the above instructions to quantify the affects of each alternative on each basin in addition to the overall project total.

References

Driscoll, E., P.E. Shelley, and E.W. Strecker, 1990. *Pollutant Loadings and Impacts from Highway Stormwater Runoff, Volume III: Analytical Investigations and Research Report.* FHWA RD-88-008. Federal Highway Administration, Woodward-Clyde Consultants, Oakland, California.

Federal Highway Administration. 1996. *Evaluation and Management of Highway Runoff Water Quality*. Office of Environment and Planning. Publication No. FHWA-PD-96-032. June 1996.

Horner, R.R. 1992. Water quality criteria/pollutant loading estimation/treatment effectiveness estimation. *In* R.W. Beck and Associates. *Covington Master Drainage Plan*. King County Surface Water Management Division., Seattle, Washington.

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Washington State Department of Transportation (WSDOT). 2004. *Washington State Department of Transportation Highway Runoff Manual* No. M 31-16. Prepared by Washington State Department of Transportation Environmental and Engineering Service Center. March 2004.

432 Floodplain

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Key to Icon



Web site.*

432.01 Introduction

This chapter includes information pertaining to WSDOT projects that impact floodplains. The chapter focuses mainly on road projects. If applicable, the policies, procedures, and permit requirements specific to ferries, airports, rail, and non-motorized transport are listed in Section 432.07.

(1) Summary of Requirements

The WSDOT Floodplain Discipline Report Checklist (Exhibit 432-1) provides the basis for identifying floodplain issues and sources of information. Other references, documents, MOUs, Interagency Agreements, and permits included in this chapter add relevant details.

The 1998 FHWA Environmental Flow Chart on Floodplains (Exhibit 432-2) gives a general overview of procedures required for floodplain analysis. The flow chart, which can be used to supplement the Floodplain Discipline Report, provides information and guidelines for discussing floodplain impacts with regulators.

Maintenance supervisors should be contacted during the project development phase to obtain input on existing flood hazards.

(2) Abbreviations and Acronyms

DEE

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

DLL	Dasc Flood Evaluation
CMZ	Channel Migration Zone
FAPG	Federal Aid Policy Guide
FCAAP	Flood Control Assistance Account Program
FEMA	Federal Emergency Management Agency
ETD) (DI II D. M

FIRM Flood Insurance Rate Map

NFIP National Flood Insurance Program

Race Flood Evaluation

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the EAO home page: http://www.wsdot.wa.gov/environment/

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Base Flood Elevation (BFE) – This refers to the calculated or estimated 100-year flood water surface elevation.

Flood – A general and temporary condition of partial or complete inundation of normally dry land areas from one of the following four sources:

- Overflow of inland or tidal waters.
- Unusual and rapid accumulation or runoff of surface waters from any source.
- Mudslides or mudflows that are like a river of liquid mud on the surface of normally dry land area, as when earth is carried by a current of water and deposited along the path of the current.
- Collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water.

Floodplain – Any land area susceptible to being inundated by flood waters from any source; usually the flat or nearly flat land on the bottom of a stream valley or tidal area that is covered by water during floods.

Floodplain Boundaries – Lines on flood hazard maps that show the limits of the 100- and 500-year floodplains.

Floodway – The channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively raising the water surface elevation more that a designated height. Normally, the base flood is defined as the 1 percent chance flood and the designated height is 1 foot above the pre-floodway condition.

Special Flood Hazard Area – An area with a one percent chance of being flooded in any given year; hence the property is in the 100-year floodplain. The special flood hazard areas are further defined as numbered and un-numbered "A" zones which describe whether the determination is based on approximate or detailed flood studies, and whether formal BFEs have been established.

Zone *A* indicates an un-numbered A zone without formal BFEs established. Zone is established through approximation.

Zones AE and A1-A30 indicate that the zone has established BFEs derived from a detailed hydraulic analysis.

Zone AH usually corresponds to areas of ponding with relatively constant surface elevations. Average depths are between one and three feet.

Zone AO corresponds to areas of shallow flooding (usually sheet flow on sloping terrain, where average depths are between one and three feet.

Zone *AR* depicts areas in the floodplain that are protected by flood control structures such as levees that are being restored.

Zone A99 corresponds to areas that will be protected by a Federal flood protection structure or system where construction has reached statutory milestones. No BFEs are depicted in these zones.

Zone *D* indicates the possible but undetermined presence of flood hazards.

Zone *V* indicates additional coastal flooding hazards such as storm waves. Study is approximate and no BFEs are shown.

Zone VE indicates additional coastal flooding hazards such as storm waves. Study is detailed and BFEs are shown.

Zones B, C, and X correspond to areas outside of the 1 per cent recurrence floodplain with a one percent chance of shallow sheet flow or minor stream flooding with water depths of less that one foot. Studies are approximate and no BFEs are shown for these areas.

432.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to floodplain issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 432.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC <u>Section 4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations are given due weight in project decision-making. For work in floodplains that requires permit approval, environmental documentation must explain the impacts the project will have on these areas, and on the resources within those areas. The State Environmental Policy Act (SEPA), mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see Chapter 410 and Chapter 411.

(2) Floodplain Management

Floodplain Management, Presidential Executive Order 11988 (May 24, 1977) directs federal agencies to avoid to the extent possible adverse impacts associated with floodplains and to avoid direct or indirect support of floodplain development.

The Executive Order can be viewed at FHWA's web site:



Click on FHWA Programs, then Environment, then Environmental Guidebook, then Floodplains.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v1ch6.htm

(3) Flood Control Management Act

The Flood Control Management Act of 1935, RCW 89, is the primary statutory authority regulating state flood control jurisdictions, which include flood control districts, counties, and zone districts. The act also regulates flood control management, flood control contributions, cooperation with federal agencies on flood control, and state participation in flood control maintenance. The 1937

RCW 86.09, Flood Control Districts, is the section of the act most relevant to WSDOT projects. For online reference, see:

http://slc.leg.wa.gov/

Click on RCW, then Title 86 – Flood Control, then Section 86.09, Flood Control Districts.

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=86.

(4) Local Ordinances

Local ordinances may also regulate floodplain management. See Section 550.03 for details on obtaining local approvals for work in floodplains.

432.03 Policy Guidance

None identified.

432.04 Interagency Agreements

(1) Memorandum of Agreement between WDFW and WSDOT - Construction of Projects in State Waters

This June 2002 MOA between WSDOT and WDFW, is designed to provide a mutual understanding between the agencies for application and acquisition of Hydraulic Project Approvals, and establishes procedures to comply with the Hydraulic Code Rules (WAC 220-110). The MOA promotes reduction of flood hazard, both by project design and by retrofitting undersized or below-standard stormwater conveyances. Revisions to this agreement are to be completed by December 2005. See Section 436.04 for details.

(2) Other Agreements

For a complete index of interagency agreements referenced in the EPM, see **Appendix E**.

432.05 Technical Guidance

(1) WSDOT Discipline Report

A Floodplain Discipline Report is needed whenever a proposed project intersects or is located in a jurisdictional floodplain, particularly when the placement of new fill, structures, in-water structures (such as barbs or weirs), bridges, channel modifications, re-locations are involved. The rationale for determining that a full Discipline Report is not needed should be documented in a technical memo that is kept in the project file.

The Discipline Report Checklist (Exhibit 432-1) provides a basis for ensuring that floodplain issues are considered in projects. The information identified in the discipline report should provide the information required for floodplain permits and also for inclusion in EISs.

The checklist includes these sections: (1) introduction and preliminary drainage survey; (2) affected environment, shown mainly by mapping; (3) studies and coordination including flood history and identification of permits required; and (4) summary. The summary should include enough detail so it can be included in an EIS with only minor modification.

(2) FHWA Environmental Flow Chart

The 1998 FHWA Environmental Flow Chart on Floodplains (Exhibit 432-2) provides an overview of floodplain issues.

(3) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including specifically the section on floodplains. For example, an EIS should identify whether proposed alternatives would encroach on 100-year floodplains, preferably demarcated by NFIP maps. Coordination with the Federal Emergency Management Agency (FEMA) and appropriate State and local government agencies should be undertaken for each floodway encroachment. If a floodway revision is necessary, an EIS should included evidence from FEMA and State or local agencies indicating that such revision would be acceptable.

The NFIP Flood Insurance Rate Maps (FIRMs) are designed for insurance purposes. As such, most are not accurate enough to rely upon for engineering design or land use decision-making. The NFIP maps tend to underestimate both the extent and depth of inundation, and this tendency should be taken into account. Some of the drawbacks of the FIRM maps are:

- Many do not have calculated Base Flood Elevations (BFEs) at all.
- Many are based on outdated hydrographic and channel cross-section data.
- Many are based on inadequate topographic data.
- The delineation of channel migration zones (CMZs) and the relationship between the CMZs and the 100 year floodplain are not well established on the FIRM maps, yet these are extremely important considerations with regard to planning transportation projects in the vicinity of floodplains, particularly those located near the larger, more dynamic rivers.

At a minimum, floodplain maps should contain topographic information accurate to two-foot contours or better.

Floodplains should be modeled using current and accurate hydrographic data using current cross-sectional data and properly calibrated modeling tools.

In addition to floodplain delineation and base flood elevation calculation, the CMZs should be mapped and overlaid in order to assess the possibility of channel migration or avulsion affecting project survivability.

The floodplain discipline report is structured to meet the requirements of the FHWA Technical Advisory. However, WSDOT should ensure that all requirements of the FHWA are met by carefully reading the Technical Advisory, which can be located under floodplain impacts on FHWA's web site:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy memorandums, then FHWA Technical Advisories. Check on Floodplain Impacts under T66400.8a.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(4) FHWA Environmental Guidebook

FHWA's online Environmental Guidebook contains several floodplain-related documents including guidance for the evaluation of encroachments on floodplains (February 22, 1982). Available via FHWA's web site:

http://www.fhwa.dot.gov/

Click on Programs, then Environment, then Environmental Guidebook, then Floodplains.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v1ch6.htm

(5) FHWA Federal Aid Policy Guide on Floodplains

The Federal Aid Policy Guide (FAPG) of December 7, 1994, contains the FHWA's current policies, regulations, and non-regulatory procedural guidance information related to the federal aid highway program. (The FAPG replaced the *Federal Aid Highway Program Manual* on December 9, 1991.) Regulatory authority for this guidance is found in 23 CFR 650 Subpart A; 42U.S.C. 4001 *et seg.*; Public Law 92-234, 87 Stat. 975.

The FAPG includes policies and procedures for the location and hydraulic design of highway encroachments on floodplains. These policies and procedures can be viewed via the FHWA home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then Title 23, CFR (and Non-Regulatory Supplements) Table of Contents, then Subchapter G – Engineering and Traffic Operations, then Part 650 – Bridges, Structures, and Hydraulics, then Subpart A – Location and Hydraulic Design of Encroachments on Floodplains.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0650a.htm

(6) Flood Emergency Procedures

ESO is coordinating with the WSDOT Maintenance Division to develop guidance for response to flooding and other emergencies. The definition of "emergency," and the appropriate expedited contracting and environmental procedures for responding to emergency are clarified in a memorandum from the Attorney General's office dated April 19, 2002. This memorandum is located on the ESO web site:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

See also the MOA on work in state waters, referenced in **Section 436.04**, and WSDOT's *Disaster Plan Manual* (M 54-11).

Further development of regional emergency project implementation guidance is needed, similar to the strategic plan for emergency flood repair on the Methow, Okanagon, Similkameen, Entiat, and Nooksack Rivers, prepared in May 1999 by Herrera and Associates, Inc. Reach Analyses prepared by WSDOT ESO for projects in problem areas along the Hoh, Nooksack, Naches, Sauk, Snohomish, Yakima, White and other rivers provide good templates for developing areaspecific guidance.

Sites with repetitive damage histories (three events in 10 years) should be considered for nomination to the Chronic Environmental Deficiencies (CED) Program, which addresses repetitive damages sites associated with watercourses. Under the auspices of the CED program, ESO hydrologists and geomorphologists provide technical assistance to regions in preparing Reach Analyses to develop solutions to complex riverine problems. Information on the CED program can be found at:

http://www.wsdot.wa.gov/environment/fishpass/default.htm

(7) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets include FEMA data and other information necessary to write the floodplain reports. Local jurisdictions can be contacted to find out whether additional local floodplain mapping is available, on GIS or hard copy. WSDOT's GIS staff process requests for this information. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(8) Flood Control Assistance Account Program (FCAAP)

The Flood Control Assistance Account Program (FCAAP) is a statewide financial assistance program, established by the legislature in 1984 to help local jurisdictions reduce flood hazards and flood damages (Chapter 86.26 RCW and Chapter 173-145 WAC). Matching grants are available to counties, cities, towns, special districts, and eligible tribes for comprehensive flood hazard management plans, specific projects or studies, and emergency flood-related activities. The program is administered by the Washington State Department of Ecology (Ecology). Applicants must participate in the National Flood Insurance Program

(NFIP). The Ecology web site below includes a general introduction to FCAAP grants, guidelines on how to apply for grants, an application form to download, sample grant agreements, invoice forms for grant recipients, progress report forms, and contacts at Ecology for more information and help in preparing or implementing grant agreements.

http://www.ecy.wa.gov/

Click on Programs, then Shorelands and Environmental Assistance, then Floodplain Management, Flood Control Assistance Account Program (FCAAP) grants.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/grants/fcaap/intro.html

(9) Comprehensive Flood Hazard Management Plans

Comprehensive flood hazard management plans are described in Ecology's *Comprehensive Planning for Flood Hazard Management* (Ecology Publication #91-44). Approved plans must meet federal and state requirements for local hazard mitigation plans. Copies may be ordered online using information located on the Ecology web page:

http://www.ecy.wa.gov/

Click on Publications, then Order Publications.

Or by direct link at:

http://www.ecy.wa.gov/biblio/rporder.html

(10) Local Floodplain Management

Information on floodplain management with respect to local governments is online at:

http://www.mrsc.org/Subjects/PubSafe/emergency/ps-flood.aspx#Management

The web site includes links to floodplain ordinances for a number of Washington cities and counties.

432.06 Permits and Approvals

Projects in floodplains may be subject to one or more of the permits listed in **Section 431.06**, Water Quality. The only permit or approval relating specifically to floodplains are county or city floodplain development permits. For details, see **Section 550.03**.

432.07 Non-Road Project Requirements

Ferry, rail, aviation and non-motorized transport systems are subject to the same policies, procedures, or permits that apply to road systems for work in a floodplain.

432.08 Exhibits

Exhibit 432-1 – Floodplain Discipline Report Checklist.

Exhibit 432-2 – FHWA Environmental Flow Chart on Floodplains.



Discipline Report Checklist Floodplain

Projec	t Name	:				Job Number:				
Conta	ct Name	e:								
Date F	Date Received: Date Reviewed: Reviewer:									
(SAT	= Satisf	actory;	INC = 1	Incomp	lete; MIS = Missin	g; N/A = Not Applicable)				
Answe	Answers are required for questions which have no N/A box.									
l.	. Introduction and Preliminary Drainage Survey									
Studie	s shall o	contain:								
•	an an	alvsis o	f design	alterna	atives with conside	ration given to capital costs and risks; and				
•	the m	agnitud	le, appro	oximate		eedance and the water surface elevation				
Discip	oline rep	orts nee	ed to inc	clude:						
Invest	igation	of poter	ntial pro	blems,	such as:					
SAT	INC	MIS	N/A							
				A.	Flood hazard.					
				B.	Channel stability.					
				C.	Effects on the env	vironment - fish and wildlife, domestic creation.				
				D.	Debris.					
				E.	Skew of crossing					
II.	Affect	ed Env	ironme	ent						
Site da	ata:									
SAT	INC	MIS	N/A							
				A.	Vicinity map.					
				B.	encroachment/str	g location of proposed and existing uctures, cross-section of the stream, s, skew of crossing.				
				C.	Limits of 100-year	ar floodplain.				

III.	Studie	es and	Coordi	nation	
SAT	INC	MIS	N/A		
				A.	Is proposed action consistent with existing watershed and floodplain?
				B.	Permits required.
				C.	Current/proposed water resource projects.
Repor	t must c	lescribe	:		
				D.	Flood history including:
					1. High water marks (with date and elevation).
					2. Nature of flooding.
				E.	Existing structures including:
					1. Type.
				F.	Foundation type.
				G.	Scour history.
				H.	X-Section beneath structure.
				I.	Drainage area above encroachment.
				J.	Evaluation of potential for changes in watershed characteristics which may change magnitude of flood peaks.

Determination of flow patterns for the 100-year event in the natural channel for existing conditions.

IV.	Summary		

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the EIS with only minor modification.

The summary should include:

SAT	INC	MIS	N/A		
				A.	The objectives of the project.
				B.	Current floodplain use.
				C.	Impacts of all alternatives including the no-build alternative.
				D.	Recommended mitigation.
				E.	Comparison of alternatives based on impacts and cost effectiveness of mitigation.
Gener	al Com	ments:			

FHWA Environmental Flowchart on Floodplains

Yes

Determine whether or not the proposed action will encroach upon the base (100-year) floodplain.

Identify the geographic area of the floodplain.

- Federal Insurance Administration (FIA) maps and studies, including Flood insurance Rate Maps (FIRM) and Flood Hazard Boundary Maps (FHBM), must be used, if available.*
- Other maps, US Geological Survey (USGS), Corps of Engineers, Natural Resources Conservation Service (NRCS), Bureau of Land Management, Tennessee Valley Authority (TVA), Forest Service, etc., may be used.

Yes

 Approximate maps may be developed by State highway agencies.

Is the proposed action located within the limits of the base floodplain, or would the action support basefloodplain development?

No

Document the action taken to support the determination that there is no encroachment.

End

* If the project is not in a Federal Emergency Management Agency (FEMA) identified flood hazard area, FIA maps will not be available and other sources should be used.

New Executive Order Draft Out Fall 1998

The study of project alternatives with encroachments, or support of base floodplain development, must include an exhibit which displays alternatives, floodplains, and some discussion of the following, commensurate with the level of impact:

- Risk to, or resulting from, the proposed action.
- Impacts on natural and beneficial floodplain values
- Degree to which the action provides direct or indirect support for incompatible development in the base floodplain; i.e., the development which is not consistent with the communities' floodplain development plan.
- Measures to minimize floodplain impacts associated with each alternative.
- Measures to restore and preserve the natural and beneficial floodplain values that are impacted.

In addition, if a particular alternative encroaches upon a regulatory floodway, the following questions must be addressed: (This usually requires some design studies.)

- Can the highway encroachment be located, designed and/or constructed so that it is consistent with regulatory floodway (RFW)?
- Can the RFW be revised to accommodate the proposed project?; i.e., does the RFW, though moved or changed, still meet NFIP standards?
- Can the RFW elevation be exceeded; i.e., is it cost effective to mitigate flood damages associated with a floodway of greater than 1foot rise?

If the preferred alternative encroaches or supports substantial incompatible floodplain development, or requires commitment to a particular structure size or type, the project record should include an evaluation of practicable alternatives to avoid or eliminate such involvements or commitments.

Yes

Does the preferred alternative include a significant encroachment or significant incompatible floodplaindevelopment?

No

- Is there significant potential for flood-related property loss or hazard to human life?
- Is there significant adverse impact on natural and beneficial floodplain values?
- Is there significant potential for interruption or termination of the communities' only evacuation route or facility needed for emergencyvehicles?

No

Documentation of the floodplain assessment should be included in the appropriate environmental document or the project file.

End

The project may not be approved unless the responsible official makes a written finding that the encroachment is the only practicable alternative. The "Only Practicable Alternative Finding" must be supported by:

- The reasons why the proposed action must be located in the floodplain,
- The alternatives considered, and why they were not practicable,
- A statement indicating whether the action conform to applicable State or local floodplain protection standards.

End

433 Groundwater

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Key to Icons

Web site.*

Interagency agreement.

433.01 Introduction

This chapter includes information and requirements for describing groundwater resources in the vicinity of the project area, and detailing potential significant adverse environmental impacts of project alternatives on these resources. Other information relevant to this chapter may be found in **Chapter 420** (Geology and Soils) and **Chapter 431** (Water Quality/Surface Water).

(1) Summary of Requirements

In general, transportation projects must be designed to avoid significant adverse environmental impacts to groundwater resources, and mitigate any unavoidable adverse impacts (e.g. through use of Best Management Practices (BMPs)).

A full Discipline Report is required when one or more project alternatives may introduce enough stormwater or wastewater into an aquifer or its recharge zone to create a significant adverse environmental impact. The Groundwater Discipline Report should include information on regional and local aquifers underlying and/or proximally down gradient from the project area, and determine whether stormwater or wastewater discharges produced by any project alternatives are likely to enter Sole Source Aquifers (SSAs), Critical Aquifer Recharge Areas (CARAs), or Wellhead Protection Areas (WPAs) in quantities sufficient to produce a significant adverse environmental impact. It should also identify other significant adverse environmental impacts to groundwater, and mitigation options for identified impacts.

WSDOT's Groundwater Discipline Report Checklist (Exhibit 433-1) provides a concise framework for describing groundwater conditions and detailing significant adverse environmental impacts of project alternatives. Information referred to in this chapter, including legislation, regulations and regulatory

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(permitting) processes, Interagency Agreements, and technical resources, provides the basis for the checklist.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

AKART All known, available, and reasonable methods of prevention,

control, and treatment

BMPs Best Management Practices
CARA Critical Aquifer Recharge Area

DOH Washington State Department of Health

GIS Geographical Information System

GMA Growth Management Act

NPDES National Pollutant Discharge Elimination System

OSS On-site Sewer

SDWA Safe Drinking Water Act SSA Sole Source Aquifer SSP Stormwater Site Plan

SWAP Source Water Assessment and Protection

SWDPState Waste Discharge PermitUICUnderground Injection ControlWPAWellhead Protection Area

(3) Glossary

Terms described in this chapter are listed below and also included in the general glossary in **Appendix B**.

Critical Aquifer Recharge Area (CARA) – Area designed by a city or county for protection under the Growth Management Act.

Injection Well – Any disposal system designed to place fluids, including highway runoff and treated wastewater from onsite sewage disposal systems, into the subsurface. Such systems include bored, drilled, or dug holes; for example dry wells, French drains, and drainfields.

Sole Source Aquifer (SSA) – Any aquifer which (1) is so designated by USEPA, (2) supplies 50 percent or more of the drinking water to the population living over the aquifer, (3) has distinct hydrogeological boundaries, and (4) for which there is no economically feasible alternative source of drinking water if it should be contaminated.

Source Water Protection Area – Area protected for drinking water supplies.

Water Right – Legal authorization to use a certain amount of public water for specific beneficial purposes.

Wellhead Protection Area – Area managed by a community to protect groundwater drinking water supplies.

433.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to groundwater issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 433.06**.

(1) Federal

(a) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on groundwater are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ) State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see Chapter 410 and Chapter 411.

(b) Safe Water Drinking Act

The Safe Drinking Water Act of 1974 (SDWA), 42 USC, Chapter 6A, sets national primary drinking water standards, regulates underground injection of fluids, and designates sole source aquifers. Amendments were added by Congress in 1986 and 1996. The 1996 amendments identify source water protection, water system operator training, and public information as components of safe drinking water programs. This law is online at:



Click on Title 42, Chapter 6A, Subchapter XII, Safety of Public Water Systems.

Or by direct link:

http://www4.law.cornell.edu/uscode/42/ch6A.html

Or by direct link:

http://www.epa.gov/safewater/sdwa/sdwa.html

Amendments of 1996. Public Law 104-182 are located at:

http://www.epa.gov/OGWDW/

Click on Safe Drinking Water Act, then select the link to the 1996 amendment text.

Or by direct link:

http://www.epa.gov/safewater/sdwa/text.html

(c) Clean Water Act

The federal Clean Water Act (Water Pollution Control Act), described in **Section 431.02**, applies to groundwater.

(2) State

Washington State laws (RCW) and rules (WAC) relevant to groundwater are located at Ecology's web site:

http://www.ecy.wa.gov/

Click on Laws and Rules, then Index of Laws (RCW) or Index of Rules (WAC), and look under the Water Quality, and Water Resources sections.

Or by direct link for RCW:

http://www.ecy.wa.gov/laws-rules/ecyrcw.html

Or by direct link for WAC:

http://www.ecy.wa.gov/laws-rules/ecywac.html

(a) Clean Water Act Implementation

State water quality regulations are mandated by the Clean Water Act referenced above. In Washington State, RCW 90.48 is the primary water pollution law. Under this statute, discharge of pollutants into waters of the state, including groundwater, are prohibited unless authorized. Because many citizens drink groundwater and use it in their homes, the state of Washington currently classifies all of its groundwater as a potential source of drinking water. The act is administered by Ecology, and is found on Ecology's web site:

http://www.ecy.wa.gov/

Click on Laws and Rules, then Index of Laws (RCW) then Title 90, then 90.48. Water Pollution Control.

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=90.48

(b) Water Quality Standards for Groundwater

WAC 173-200 mandates groundwater quality standards to maintain the highest quality of the state's groundwaters and to protect existing and future beneficial uses of the groundwater through the reduction or elimination of contaminant discharge. All wastes must be provided with all known, available, and reasonable methods of prevention, control, and treatment (AKART) prior to discharge into the state's waters.

The requirements, administered by Ecology through the State Waste Discharge Permit (SWDP) and the National Pollutant Discharge Elimination System (NPDES) permit programs, are available online at:

http://slc.leg.wa.gov/

Click on WAC, then Title 173, then 173-200.

Or by direct link:

http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapter=173-200

Implementation Guidance for the Groundwater Water Quality Standards (Ecology Publication #96-02) is online at:

http://www.ecy.wa.gov/

Click on Programs, then Water Quality, then Groundwater, then Implementation Guidance.

Or by direct link:

http://www.ecy.wa.gov/biblio/96002.html

(c) Wellhead Protection

Wellhead protection is mandated by the federal Safe Drinking Water Act. In Washington, the Department of Health (DOH) is designated as lead agency for the wellhead protection program. A wellhead protection area is the area managed by a community to protect its groundwater drinking water supplies. In 1994, WAC 246-290 was modified to include wellhead protection for all public water systems using groundwater. DOH uses the term "Group A" to designate public water systems that serve 25 or more people, or 15 or more connections. Regulations are online at:



http://slc.leg.wa.gov/

Click on WAC, then Title 246, then Chapter 246-290, Public Water Supplies.

Or by direct link:



http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapt er=246-290

(d) **Underground Injection Control**

The Underground Injection Control (UIC) Program, authorized by the Safe Drinking Water Act (SDWA), is designed to prevent contamination of underground sources of drinking water from the use of injection wells. A UIC well is a hole that is constructed to put water and other fluids into the ground. In Washington, most of these wells are dug to dispose of stormwater or wastewater (e.g.: drywells, drainfields, and infiltration trenches).

The UIC Program was established in 1984 and is administered under 40 CFR, Part 144. Ecology was delegated authority by USEPA to administer the program in Washington State, under authority of RCW 43-21A.445 and WAC 173-218. All new underground control activities must treat the "waste" fluid before injection. For the current minimum acceptable level of treatment, see WSDOT's approved *Highway Runoff Manual* (M 31-16) for stormwater standards, and the current Department of Health standards for onsite sewage.

For information on the UIC law see:



http://slc.leg.wa.gov/

Click on WAC, then Title 173, then Chapter 173-218, Underground Injection.

Or by direct link:

http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapter=173-218

For information on the UIC Program see:

http://www.ecy.wa.gov/

Click on Programs, then Water Quality, then Groundwater, then Underground Injection Control Program.

Or by direct link:

http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html

(e) Growth Management Act

In 1990, the Washington State Legislature adopted the Growth Management Act (GMA), RCW 36.70A. This statute, combined with Article 11 of the Washington State Constitution, mandates that local jurisdictions adopt ordinances that classify, designate, and regulate land use in order to protect critical areas. Critical areas include aquifer recharge areas, which are regulated through local Critical Aquifer Recharge Area (CARA) ordinances. See Section 451.02 for more information on the GMA.

Under the GMA, state agencies must comply with local comprehensive plans and development regulations (RCW 36.70A.103); likewise local agencies should coordinate with WSDOT.

(3) Local Critical Aquifer Recharge Area Ordinance

The purpose of Critical Aquifer Recharge Area (CARA) ordinances is to provide cities and counties with a mechanism to classify, designate, and regulate areas deemed necessary to provide adequate recharge and protection to aquifers used as sources of potable (drinking) water. Unless the local laws conflict with state law, WSDOT must meet the requirements of local regulations. Local planning departments should be contacted to determine the location or descriptive criteria of geologically hazardous areas that may impact the project.

Information on the ordinances which define and regulate Critical Aquifer Recharge Areas, is located at:

http://www.ecy.wa.gov/

Click on Programs, then Water Quality, then Groundwater, then Critical Aquifer Recharge Area Ordinances.

Or by direct link:

http://www.ecy.wa.gov/programs/wq/grndwtr/cara/index.html

Ecology's Guidance Document for the Establishment of Critical Aquifer Recharge Area (Ecology Publication # 97-030) is online at:

http://www.ecy.wa.gov/

Click on Publications, then search for 97-030.



http://www.ecy.wa.gov/biblio/97030.html

433.03 **Policy Guidance**

(1) Washington State Transportation Commission

The Transportation Commission's Policy Catalog contains a specific policy on water quality. Policy 6.3.2 is: "Minimize the impact that construction, operation and maintenance of transportation facilities has on the state's surface and groundwater. Minimize and control levels of harmful pollutants generated by transportation activities from entering surface and groundwater resources."

(2) State Source Water Assessment and Protection Programs Guidance

State Source Water Assessment and Protection (SWAP) Program guidance is required under the SDWA Amendments of 1996 (Public Law 104-182, Section 1453) to ensure better quality drinking water. Water assessments will generate information on significant potential contamination sources and will also generate information regarding the susceptibility of systems to contamination. The USEPA is responsible for the review and approval of state SWAPs.

State Source Water Assessment and Protection Programs Final Guidance (April 1997) describes USEPA's recommendations for what should be the elements of a State SWAP program, and of the importance of federal, state and public cooperation in developing and implementing SWAP programs (USEPA publication 816-R-97-009). The document is online at:



http://www.epa.gov/OGWDW/

Click on Publications, then Protection of Drinking Water Sources and select Source Water Assessment and Protection, then State Source Water Assessment and Protection Programs Final Guidance, April 1997.

Or by direct link:



http://www.epa.gov/safewater/swp/swappg.html

433.04 **Interagency Agreements**

(1) **Sole Source Aquifers**

The Memorandum of Understanding between FHWA Region 10, USEPA Region 10 and WSDOT on sole source aquifers aims to ensure that each highway project is designed and constructed in a manner that will prevent the introduction of contaminants into a sole source aguifer (SSA) (an aguifer that supplies 50 percent or more of the drinking water of an area) in quantities that may create a significant hazard to public health. The MOU is online via the Environmental Services Office web site:



http://wsdot.wa.gov/environment/compliance/agreements.htm



MOU Between the FHWA Region 10, Portland, Oregon and the USEPA Region 10, Seattle, Washington and WSDOT, Olympia, Washington: Sole Source Aguifer, State of Washington, June 1988.

For a WSDOT project to be within the scope of the MOU, all three of the following conditions must be met:

- **USEPA-designated SSA**
- Federal funding
- Project type included, not excluded

The MOU includes lists of sole source aquifers as of 1988 (Attachment A), excluded projects (Attachment B), projects that should be submitted to USEPA (Attachment C), and 1987 National Primary Drinking Water Regulations (Attachment D).

Federal funds may not be expended unless the project is designed to avoid any violation of federal or state drinking water regulations referenced in the MOU, and partially listed in Attachment D.

To comply with the Sole Source Aquifer MOU:

- Provide USEPA early opportunity to participate in development and review of environmental documents. USEPA should be contacted before the first draft document is circulated outside WSDOT for general review.
- Immediately transmit to USEPA any agency comments received indicating adverse impacts on the aquifer.
- Respond to USEPA direction.

USEPA has designated nine Sole Source Aquifers in Washington. They are: Cedar Valley Aquifer, Cross Valley Aquifer, Guemes Island Aquifer, Marrowstone Aquifer, Newberg Aquifer, Pierce County Aquifer System, Spokane Valley Rathdrum Prairie Aquifer, Vashon Aquifer, and Whidbey and Camano Island Aquifers.

The use of injection wells (such as dry wells, sumps, and drainfields) for stormwater treatment and disposal is common over these aquifers. All injection activities must meet Washington groundwater quality standards. Therefore, before injection, all stormwater must be treated using an approved stormwater BMP as contained in WSDOT's latest approved *Highway Runoff Manual* (M 31-16). USEPA may consider the use of other BMPs on a case-by-case basis or through an updated memorandum of Understanding between USEPA, FHWA, and WSDOT. In addition, if untreated stormwater runoff is disposed using injection wells, WSDOT must ensure that the injection well is retrofitted to apply the latest approved stormwater BMPs as identified in the *Highway Runoff* Manual.

For a map of sole source aguifers, see USEPA's web page:



http://www.epa.gov/

Click on Where You Live, then Regional Offices, then Region 10, then Index, then M, then Map Library, then Sole Source Aquifers (under Maps Related to Groundwater Activities).

Or by direct link:



http://www.epa.gov/r10earth/maps/ssarx.html

(2) Other Interagency Agreements

See **Appendix E** for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-making Process.

433.05 Technical Guidance

(1) Groundwater Discipline Report

WSDOT's Groundwater Discipline Report provides discipline-specific information required for EAs, EISs, permits, and other environmental documents. This information includes a description of regional and local aquifers underlying the project area, whether these aquifers are designated as Sole Source Aquifers, and whether stormwater or wastewater discharges from each project alternative are likely to enter Critical Aquifer Recharge Areas or Wellhead Protection Areas. It should also identify other environmental impacts to groundwater, and mitigation options for identified environmental impacts.

A full Discipline Report is generally needed when any or all project alternatives would generate stormwater or wastewater that could enter the saturated zone of an unconfined aquifer or recharge zone for a confined aquifer.

A full Discipline Report is required when one or more project alternatives may introduce enough stormwater or wastewater into an aquifer or its recharge zone to create a significant environmental impact. A determination of frequency, quantity, and duration of introduced flows sufficient to produce a significant environmental impact will vary depending on the administrative classification of the groundwater resource area (e.g. SSA, CARA, WPA) and its location relative to the project. Early consultation with appropriate WSDOT and regulatory (WDOE, WDOH, county planning) staff is recommended. If a full discipline report is determined to be unnecessary, the rationale should be documented in a technical memo that is kept in the project file.

The Groundwater Discipline Report generally contains the following major sections:

- Summary
- Description of Project Alternatives
- Study Methodology
- Coordination
- Affected Environment
- Environmental Impacts
- Mitigation of Impacts
- References/Information Sources

Sections which are sufficiently brief may be combined with other sections where it makes sense to do so (e.g. Study Methodology and Coordination).

Technical reports, memoranda, data summaries, or other documentation developed to support the Discipline Report should be placed in one or more appendices after the main body of the report.

Further guidance for preparing the discipline report is provided below. <u>A</u> <u>Discipline Report Checklist is provided as **Exhibit 433-1**.</u>

(a) Summary

The summary presents significant findings of the report in non-technical terms. Significant findings include regional and local aquifers and their administrative designations (SSA, CARA, WPA), predicted environmental impacts, and mitigation recommendations. The summary should be suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making.

(b) Description of Project Alternatives

This section presents a brief description of project alternatives identified during the scoping process. Descriptions should be consistent with those in other discipline reports.

(c) Study Methodology

This section describes the approach used to determine and evaluate predicted environmental impacts and other report findings and conclusions. The description should include data and information sources, field methods, analysis techniques and tools, and decision criteria, and should be as succinct as possible. Detailed descriptions, where necessary, should be included in the appropriate appendix.

(d) Coordination

This section identifies agencies and other organizations involved with or contacted during the development of the report.

(e) Affected Environment

This section describes the existing conditions with respect to geology and soils in the vicinity of the project area. Topic areas include the following:

- *Hydrogeologic Setting* describe regional and local aquifers in the vicinity of the project area.
- Administrative Designations determine whether aquifers described above are designated as Sole Source Aquifers, Critical Aquifer Recharge Areas, or contain Wellhead Protection Areas that are likely to be impacted by the project.

(f) Environmental Impacts

This section describes the predicted environmental impacts of project alternatives on groundwater resources. Impacts to be considered include direct (construction and operational), indirect, and cumulative. For more information about analysis of impacts, see **Section 411.09(7)** and **Chapter 480**.

(g) Mitigation of Impacts

This section describes <u>recommended or proposed</u> mitigation measures, commitments, and monitoring procedures <u>corresponding to impacts</u>

described in (f) above, as well as mitigation measures considered or available but not included, with reasons why.

(2) WSDOT Highway Runoff Manual

The 2004 *Highway Runoff Manual* (M 31-16) provides a guide for policies, procedures, and methods for developing and documenting the design and maintenance of improvements to WSDOT's transportation system.

The manual contains approved methods of managing water quantity and quality from WSDOT facilities. These methods are known as Best Management Practices (BMPs). Selection criteria are established for the use of acceptable BMPs during construction and long-term maintenance of highways. Several of the BMPs identify groundwater-related limitations which may preclude their use; see Sections 3A-2.4, 5.4.2.3 (RT-06), 5.4.3.2 (FC-01), and 5A-3.1.2. Mitigation recommendations should consider if and where within the project area such limitations are likely. The *Highway Runoff Manual* is available online at:

http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/HighwayRunoff2004.pdf

(3) Wellhead Protection Program

A wellhead protection area is the area managed by a community to protect its groundwater-based drinking water supplies. WSDOT practice is to participate proactively in the development and implementation of local wellhead protection plans. If wellhead protection areas are identified that are likely to be impacted by one or more project alternatives, then the appropriate entities (well owner, local and state departments of health) should be consulted regarding appropriate protective and mitigation measures.

DOH provides technical guidance in the *Washington State Wellhead Protection Program Guidance Document* (DOH Publication #331-018, April 1995). The document includes information on the determination of wellhead protection areas, management strategies and implementation, program financing, and interagency issues.

(4) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including specifically impacts on groundwater. For example, when a proposed project encroaches on a wellhead protection area (as identified by the state under approval by the USEPA), an EIS should identify the area, the potential impacts, and proposed mitigation measures for each alternative. For details, see FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(5) FHWA Environmental Guidebook

Guidance documents on Sole Source Designation Aquifer Programs, and Sole Source Aquifer Programs are available from the FHWA's Environmental Guidebook, online via FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Safe Drinking Water Act.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v1ch10.htm

433.06 **Permits and Approvals**

Permits relating to groundwater are addressed in the following sections:

State

- Section 540.12 State Waste Discharge Permit
- Section 540.14 Underground Injection Control Registration
- Section 540.21 On-site Sewage Facility Permit
- Section 540.25 Other State Approvals (Water Right, Water System Project Approvals)
- Section 540.25 Other State Approvals (Dam Construction Permit, Reservoir Permit)

Local

Section 550.10 – Other Local Approvals (On-site Septic systems, Water System Approval for non-public use such as a maintenance facility)

433.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are subject to the same policies, procedures, or permits that apply to road systems.

433.08 **Exhibits**

Exhibit 433-1 – Groundwater Discipline Report Checklist.



Discipline Report Checklist Groundwater

Project Name:					Job Number:
Contact Name:					
Date Received: Date Reviewed: Reviewer: (SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable) Answers are required for questions which have no N/A box.					
I.	Summary				
SAT	INC	MIS	N/A		
				A.	Describes significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms.
				В.	Summary is suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making.
II.	Desci	ription	of Proj	ect Alt	ernatives
II.	Desci	ription	of Proje	ect Alt	ernatives
		-		ect Alt	Briefly describes project alternatives identified during the scoping process; descriptions are consistent with those in other discipline reports.
	INC	MIS	N/A		Briefly describes project alternatives identified during the scoping process; descriptions are consistent with those in
SAT	INC	MIS	N/A		Briefly describes project alternatives identified during the scoping process; descriptions are consistent with those in
SAT	INC Study	MIS	N/A □		Briefly describes project alternatives identified during the scoping process; descriptions are consistent with those in

IV.	Coord	dination	1		
SAT	INC	MIS	N/A		
					Agencies and other organizations involved with or contacted during the development of the report are identified.
٧.	Affect	ted Env	vironme	ent	
SAT	INC	MIS	N/A	A.	Describes regional and local aquifers in the vicinity of the project area.
				B.	Sole Source Aquifers are correctly identified.
				C.	Critical Aquifer Recharge Areas are correctly identified.
				D.	Wellhead Protection Areas are correctly identified.
\/I	Fan die		hal lasas		
VI.	Envir	onment	iai imp	acis	
SAT	INC	MIS	N/A		
				A.	Describes the predicted direct construction and operational impacts of project alternatives on groundwater resources.
				B.	Describes the indirect and cumulative impacts of project alternatives on groundwater resources.
IV.	Mitiga	ation			
SAT	INC	MIS	N/A		
				A.	Describes recommended or proposed mitigation measures, commitments, and monitoring procedures corresponding to impacts described in Section VI above.
				B.	Describes mitigation measures considered or available but not included, with reasons why.
Genera	General Comments:				

436.01	Introduction
436.02	Applicable Statutes and Regulations
436.03	Policy Guidance
436.04	Interagency Agreements
436.05	Technical Guidance
436.06	Permits and Approvals
436.07	Non-Road Project Requirements
436.08	Exhibits

Key to Icons

Web site.*

Interagency agreement.

436.01 Introduction

This chapter describes the policies and procedures related to wildlife, fish, and vegetation that apply to WSDOT projects, particularly the implications of Endangered Species Act (ESA) species listings. It includes information on requirements related to threatened and endangered species and critical habitats, as well as non-listed wildlife, fish, and vegetation. This chapter does not discuss roadside vegetation design and management. Please refer to the WSDOT *Roadside Manual* (M 25-30) for this information.

WSDOT's primary goal is to provide safe, efficient, dependable and environmentally responsible transportation facilities and services. WSDOT is committed to preserving, protecting, and enhancing the state's natural resources while operating, maintaining, and improving the state's transportation system. WSDOT biologists are involved in all stages of project development, evaluating potential adverse impacts and recommending impact avoidance or minimization measures.

Sensitive wildlife, fish, plants, and their habitat require special consideration during project planning and development.

Areas of particular concern include:

- Direct effects from construction such as noise disturbance or other disruption of habitat areas.
- Interference to critical life functions such as wintering, foraging, migration, breeding and/or rearing.
- Degradation or loss of habitat.
- Habitat fragmentation and edge effects.
- Effects related to collisions between vehicles and animals.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

- Loss of animal or plant populations.
- Impacts to food resources.
- Water quality impacts.
- Effects on migration or dispersal of organisms including mammals, reptiles, amphibians, fish, insects, and/or ground-dwelling birds, where the project could create or exacerbate barriers to movement.

Chapters on water quality (Chapter 431) and wetlands (Chapter 437) are also relevant to consideration of fish and wildlife issues.

Road projects are the focus of this section. However, these or similar policies, permits, and procedures also apply to other transportation projects. Issues specific to ferries, airports, rail, and non-motorized transport are addressed in **Section 436.07**.

(1) Summary of Requirements

If a transportation project involves federal funds or permits, or if it is on federal lands, it is said to have a federal nexus. If the project has a federal nexus, it must comply with NEPA and Section 7 of the ESA. All projects, regardless of funding source, must comply with Section 9 of the ESA; SEPA, as supplemented in 1983, RCW 43.21C; SEPA Rules, WAC 197-11; and local ordinances.

Salmonid listings under the ESA have triggered the development of new policies and requirements at all jurisdictional levels. Because agencies and municipalities are actively creating strategies to address the ESA listings, this section will be updated regularly as policies and regulations change.

(2) Abbreviations and Acronyms

Abbreviations and acronyms specific to this chapter are listed below. Others are found in the general list in **Appendix A**.

BA	Biological Assessment
BE	Biological Evaluation
ВО	Biological Opinion

BMP Best Management Practice
BLM Bureau of Land Management

EFH Essential Fish Habitat
ESA Endangered Species Act
ESU Evolutionarily Significant Unit
FMP Fishery Management Plan

GHPA General Hydraulic Project Approval

HPA Hydraulic Project Approval IA Implementing Agreement

JARPA Joint Aquatic Resources Permit Application

MOA Memorandum of Agreement MOU Memorandum of Understanding

MSA Magnuson-Stevens Act

NEPA National Environmental Policy Act NFMA National Forest Management Act

NFP Northwest Forest Plan

NOAA Fisheries National Oceanic and Atmospheric Administration (National

Marine Fisheries Service)

NWP Nationwide Permit

OHWM Ordinary high water mark or line PBA Programmatic Biological Assessment

PHS Priority Habitats & Species

PFMC Pacific Fishery Management Council RPA Reasonable and Prudent Alternative

TFW Timber, Fish, & Wildlife USFWS U.S. Fish & Wildlife Service

WDFW Washington State Department of Fish and Wildlife

WNHP Washington Natural Heritage Program

(3) Glossary

See Appendix B for a general glossary of terms used in the EPM.

Anadromous Fish – Species that hatch in freshwater, mature in saltwater, and return to freshwater to spawn.

Aquifer Recharge Area – Area which has a critical replenishing effect on aquifers used for potable water.

Baffle – Flow-deflecting structure that provides low-velocity resting water for the passage of fish.

Candidate Species – Any species of fish, wildlife, or plant considered for possible addition to the list of endangered and threatened species. These are *taxa* for which NOAA Fisheries or USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Cumulative Effects – Effects of future state, local, or private actions that are reasonably certain to occur in the action area.

Critical Habitat – Specific area occupied by a listed species within its geographic range, which contains the physical or biological features essential to the conservation of the species and which may require special protection or management considerations.

Endangered Species – Any species which is in danger of extinction throughout all or a significant portion of its range.

Evolutionarily Significant Unit – A designation used by NOAA Fisheries for certain local salmon populations or "runs" which are treated as individual species under the Endangered Species Act. This is equivalent to the U.S. Fish and Wildlife Service (USFWS) "Distinct Population Segment" classification.

Federal Nexus – When the federal government is connected to a project either by owning land within the project limits, providing project funding, or by requiring a permit.

Habitat – Place where a plant or animal naturally or normally completes its life cycle.

Incidental Take – Take of listed species that results from, but is not the intention of, carrying out an otherwise lawful activity.

Indirect Effects – Effects caused by or resulting from the proposed action but that occur later in time, including effects resulting from associated development and other activities that occur following improvements in transportation.

Interdependent Effects – Effects caused by actions that have no independent utility apart from the proposed action.

Interrelated Effects – Effects created by a proposed action that would not occur "but for" that action.

Jurisdiction – Governing authority which interprets and applies laws and regulations.

Large Woody Debris – Conifer or deciduous logs, limbs, or root wads of a certain diameter which interact with the stream channel and contribute to the habitat diversity of the stream.

Late-Successional – Stage in forest development that includes mature and old growth forest and associated plant and animal species.

Listed Species – Any species of fish, wildlife, or plant which has been determined to be endangered or threatened under Section 4 of the ESA.

Old Growth – Forest stand with moderate to high canopy closure; a multilayered, multispecies canopy dominated by large overstory trees; a high incidence of large trees with large, broken tops, and other indications of decadence; numerous large snags and heavy accumulations of logs and other woody debris on the ground.

Programmatic Biological Assessment – A biological assessment designed to cover programs, not specific projects.

Proposed Species – Any species of fish, wildlife, or plant that is proposed by NOAA Fisheries or USFWS for federal listing under Section 4 of the ESA.

Salmonid – Fish of the family *Salmonidae* which include salmon and trout.

Take – Defined under the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct," including modification to a species' habitat.

Threatened Species – Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Viability – Ability of a population to maintain sufficient size so it persists over time in spite of normal fluctuations in numbers; usually expressed as a probability of maintaining a specific population for a defined period.

Watershed – Basin including all water and land areas that drain to a common body of water.

436.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to fish and wildlife habitat issues. See **Appendix D** for an index of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 436.06**.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to fish and wildlife are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Endangered Species Act (ESA)

The criteria for determining threatened and endangered plant and animal species is provided by the ESA of 1973, which is administered by NOAA Fisheries and USFWS. The goals of the ESA include species conservation, ecosystem conservation, and species recovery.

Section 4 of the ESA allows for the listing of species as threatened or endangered based on habitat loss or degradation, overutilization, disease or predation, inadequacy of existing regulation mechanisms, or other human-caused factors. Section 4(d) allows for the promulgation of regulations to provide for the protection and conservation of listed species. It may allow for the "take" of threatened species.

Section 7 of the ESA requires each federal agency to ensure its actions to authorize, permit, or fund a project do not jeopardize the continued existence of any threatened or endangered species. It describes consultation procedures and conservation obligations.

Section 9 of the ESA prohibits a "take" of listed species. "Take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect or attempt to engage in such conduct" (1532(18)). An exception to the "take" prohibition applies to endangered plants on non-federal lands, unless the taking is in knowing violation of state law (1538(a)(2)).

The habitat of listed species is also protected under Section 9. This prohibition is broadly defined and applies to privately and publicly owned lands. Under USFWS regulations, Section 9 applies to all threatened and endangered species. Under NOAA Fisheries regulations, Section 9 applies to all endangered species. NOAA Fisheries evaluates each threatened species under its jurisdiction on a species by species basis to determine whether or not the "take" prohibition will apply. Section 4d of the ESA allows for each service (USFWS and NOAA Fisheries) to develop special rules (4d rules) which apply a more appropriate level of protection for each threatened species. These protections may be less restrictive than those under Section 9.

Because of the habitat requirements of salmonids, planning processes under the ESA and the federal Clean Water Act (CWA) are becoming increasingly integrated. The U.S. Environmental Protection Agency (USEPA) and Washington State Department of Ecology (Ecology) are working to ensure that water quality permits and procedures meet the goals and requirements of the ESA. NOAA Fisheries, USFWS, and USEPA are

increasing coordination efforts and are reviewing permit requirements, like those in Sections 402 and 404 of the CWA, which could affect listed salmonids. As a result, procedures and policies related to water quality could be modified. As these changes occur, updates will be made in Chapter 431. Regulations pertaining to wetlands also overlap with ESA requirements because wetlands could be habitat for federally listed plants and animals. USFWS has an important role in reviewing permits and regulations pertaining to wetlands. The details of wetland permitting are covered in Section 437.06.

The ESA can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Title 16, then Chapter 35, Endangered Species Act of 1973.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/ch35.html

A good summary of this statute can be found at the USFWS web site:

http://www.fws.gov/

Click on Endangered, then ESA and what we can do.

Or by direct link:

http://laws.fws.gov/lawsdigest/esact.html

(c) National Forest Management Act

The primary goal of the National Forest Management Act (NFMA, 16 USC 1604 (g)(3)(B)) is to maintain multiple use and species diversity on federal forest lands. The NFMA applies directly to lands administered by the U.S. Forest Service (USFS), but also provides direction for Bureau of Land Management (BLM) land management plans. The BLM and USFS have integrated NEPA requirements with their land management regulations.

The NFMA is described online at:

http://www.fs.fed.us/

Enter National Forest Management Act in the Search box.

Or by direct link:

http://www.fs.fed.us/r2/nebraska/gpng/cfr219.html

The USFS has developed forest-specific "forest plans" which identify "species of concern" found within that forest. This list is comprised of several categories of species such as federally listed species, USFS sensitive species, survey and manage species, and state-listed species. Forest plans can cover a wide range of species (e.g. slugs, lichens, mammals). Staff of each forest decide which designated species to include on its species of concern list. Different requirements are associated with

different species ranking; however, actions on federal land must always comply with the ESA.

The Northwest Forest Plan (NFP) is a management plan affecting federal forest lands within the range of the northern spotted owl in western Washington, Oregon, and northern California. The standards and guidelines set forth in this plan supersede any existing forest plans within the range of the spotted owl. The NFP also applies directly to National Forests without existing, approved forest plans within the range of the spotted owl. The goals of this plan include: maintaining late-successional and old growth habitat and ecosystems, maintaining biological diversity, restoring and maintaining ecological health of watersheds, and promoting regional economic stability by providing a sustainable supply of timber and other forest products. All WSDOT projects occurring on federal forest lands within the range of the northern spotted owl must follow the standards and guidelines within the NFP.

The following web site contains the NFP:



http://www.or.blm.gov/

Click on Northwest Forest Plan.

Or by direct link:



http://www.or.blm.gov/nwfp.htm

Fish and Wildlife Coordination Act (d)

The Fish and Wildlife Coordination Act (16 USC 661-667 (e)) authorizes the USFWS, NOAA Fisheries, and the Washington State Department of Fish and Wildlife (WDFW) to investigate all proposed federal and nonfederal actions needing a federal permit or license, which would impound, divert, deepen, or otherwise control or modify a stream or other body of water and to make mitigation or enhancement recommendations. The primary goal of this act is to incorporate wildlife conservation with water resource development programs (see the Fish and Wildlife Coordination Flowchart, FHWA, 1998 in Exhibit 436-1).

The statute can be viewed at:



http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 13, then Fish and Wildlife Coordination Act.

Or by direct link:



http://www4.law.cornell.edu/uscode/16/661.html

A good summary of this statute can be found at:



http://www.fws.gov/

Click on Habitat, then Branch of Federal Activities, then Fish and Wildlife Coordination Act.

Or by direct link:

(e) Migratory Bird Treaty Act

This federal law, administered by the USFWS, makes it unlawful to take, import, export, possess, sell, purchase, or barter any migratory bird, with the exception of the taking of game birds during established hunting seasons. The law also applies to feathers, eggs, nests, and products made from migratory birds. This law is of particular concern when birds nest on bridges, buildings, signs, and ferry dock structures. WSDOT is developing guidance on avoiding active nests during highway construction or bridge maintenance, and other relevant issues to ensure compliance with the Migratory Bird Treaty Act.

Signed by President Bill Clinton effective January 10, 2001, Executive Order 13186 outlines federal agency responsibilities for protecting migratory birds under the Migratory Bird Treaty Act and other statutes. It requires the FHWA to enter into a MOU with the USFWS on protecting a wide range of migratory bird species; this MOU is not yet finalized. The Executive Order is online at:

http://www.epa.gov/owow/wetlands/regs/eo13186.pdf

The Act itself can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 18, select Migratory Bird Treaty Act.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/703.html

A good summary of this statute can be found at:

http://www.fws.gov/

Click on Conserving Wildlife and Habitats, then Laws, then Resource, then Migratory Bird Treaty Act.

Or by direct link:

http://laws.fws.gov/lawsdigest/migtrea.html

(f) Bald and Golden Eagle Protection Act

This federal law, administered by the USFWS, makes it unlawful to take, import, export, sell, purchase, or barter any bald or golden eagle, their parts, products, nests, or eggs. "Take" includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing the eagles. Permits may be issued by the USFWS for scientific or exhibition use, or for traditional and cultural use by Native Americans. All WSDOT projects must be in compliance with the Bald and Golden Eagle Protection Act.

The statute can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 3, select Bald Eagle Protection Act.

Or by direct link:



http://www4.law.cornell.edu/uscode/16/668.html

A good summary of this statute can be found at:



http://www.fws.gov/

Click on Birds; then Laws, Regulations, and Policy; then Laws and Acts; then Bald Eagle Protection Act.

Or by direct link:



http://laws.fws.gov/lawsdigest/baldegl.html

Marine Mammal Protection Act <u>(g)</u>

This 1972 law establishes federal responsibility for conservation and management to protect marine mammals. It establishes a moratorium on the taking and importation of marine mammals and marine mammal products. It also encourages creation of international agreements for research and conservation of these species. The statute can be viewed at:



http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 18, and select Marine Mammal Protection Act of 1972.

Or by direct link:



http://www4.law.cornell.edu/uscode/16/1361.html

A good summary of this statute can be found at:



http://www.fws.gov/

Click on Policies, then Resource Laws, then, Resource, then Marine Mammal Protection Act of 1972.

Or by direct link:



http://laws.fws.gov/lawsdigest/marmam.html

(h) Fishery Conservation and Management Act (Magnuson-Stevens Act)

Under the Fishery Conservation and Management Act of 1976, NOAA Fisheries was given legislative authority to regulate the fisheries of the United States. The Act also established eight Regional Fisheries Management Councils. These Councils prepared Fishery Management Plans (FMPs) to govern their management activities which were submitted to NOAA Fisheries for approval. In 1996, this Act was amended to emphasize the sustainability of the nation's fisheries and create a new habitat conservation approach. This habitat is called Essential Fish Habitat (EFH). The Act is now known as the Magnuson-Stevens Act.

In 1999 and 2000, the Pacific Fishery Management Council (PFMC) added provisions for the protection of EFH to three FMPs (Coastal Pelagics, Groundfish, and Pacific Coast Salmonids) in the Pacific Northwest. EFH is defined by Congress as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC 1802(10)).

The Pacific salmon fishery management unit includes Chinook (Oncorhynchus tshawytscha), coho (Oncorhynchus kisutch), and pink salmon (*Oncorhynchus gorbuscha*). This designation is not limited to federally listed species. The west coast groundfish management unit includes 83 species that typically live on or near the ocean floor. Species groups include skates and sharks, rockfish, flatfish, and groundfish. The west coast pelagics management unit includes those species primarily associated with the open ocean and coastal areas such as the pacific sardine (Sardinops sagax), pacific chub (Scomber japonicus) and several others.

Federal agencies must consult with NOAA Fisheries on all activities, or proposed activities, authorized, funded, or undertaken by the agency that may adversely affect EFH. WSDOT Guidance on EFH consultations can be found in Section 436.05(4). Information on EFH can be found at the NOAA Fisheries homepage:



http://www.nmfs.noaa.gov/

Click on Conserving Marine Habitat, then Habitat Protection Division, then Essential Fish Habitat.

Or by direct link:



http://www.nmfs.noaa.gov/habitat/habitatprotection/essentialfishhabitat.

(2) Tribal

Projects on tribal lands may be subject to tribal laws that regulate fish, wildlife, and habitat. Projects not on tribal land could affect treaty-reserved resources or species of tribal significance. The appropriate tribal biologist should be contacted to discuss any regulations that may apply to the project.

*(*3) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to fish and wildlife are given due weight in decisionmaking. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapter 410 and Chapter 411.

Forest Practices Act (b)

The Forest Practices Act is directed towards timber harvesting and reforestation on non-federal forestland. It regulates forest management related activities such as road construction, pesticide and herbicide use, and work in waters of the United States.

In addition to Forest Practices requirements, Timber, Fish and Wildlife (TFW) caucuses (including federal and state agencies, local authorities, tribes, and the timber industry) have produced the Forest and Fish Report (April 1999). This report was an attempt by TFW to address the recent ESA listings of salmonids by introducing new regulations and guidelines to ensure ESA compliance for activities on non-federal forest land. The Forest Practices Board adopted emergency rules consistent with the *Forest* and Fish Report. These emergency rules have been combined with the permanent forest practices rules in the Washington Forest Practices Rule Book, April 2000. Currently the Forest Practices Board is conducting a comprehensive revision of the permanent forest practices rules based on the following goals:

- To provide ESA compliance for aquatic and riparian-dependant species on state-owned and private forest lands.
- To restore and maintain riparian habitat on state-owned and private forest lands to support a harvestable supply of fish.
- To meet the requirements of the CWA for water quality on stateowned and private forest lands.
- To keep the timber industry economically viable in Washington

Information on the Forest Practices Act can be found at:



http://dnr.wa.gov

Click on Forest Practices Board, then click the Forest Practices Act PDF file.

Or by direct link:



http://www.dnr.wa.gov/forestpractices/rules/rcw76.09.pdf

Bald Eagle Protection Rules (c)

The Bald Eagle Protection Rules (WAC 232-12-292) are designed to protect eagle habitat and thereby increase and maintain eagle populations. The rules promote cooperative habitat management between state and federal agencies and private landowners.

(d) Fish Passage Law

This law (RCW 77.55.060), and implementing regulations (WAC 220-110-070) require that any dam or other obstruction across or in a stream shall be provided with a durable and efficient fishway approved by WDFW. The fishway must be maintained and continuously supplied with sufficient water to freely pass fish.

The statute can be accessed online at:

http://www.leg.wa.gov/rcw/index.cfm

Click on Title 77, then 77.55, then 77.55.060

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?section=77.55.060&fuseaction=section

The regulations are online at:

http://www.leg.wa.gov/wac/

Click on Title 220, then 110, then 110-070

Or by direct link:

http://www.leg.wa.gov/WAC/index.cfm?section=220-110-070&fuseaction=section

(e) Shoreline Management Act

The goal of Washington's Shoreline Management Act (RCW 90.58) is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The Act establishes a broad policy of shoreline protection, which includes fish and wildlife habitat.

The SMA uses a combination of policies, comprehensive planning, and zoning to create a special zoning code overlay for shorelines. Under the SMA, each city and county can adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic and environmental needs of the community. Master programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Please refer to Section 452.02 for more details about the SMA and local Shoreline Master Programs. To reference the statute, see the web site below:

http://slc.leg.wa.gov/

Click on RCW, then Title 90, then 90.58, Shoreline Management Act.

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=90.58

(4) Local Comprehensive Plans and Critical Area Ordinances (CAO)

Washington's Growth Management Act of 1990 (GMA) requires counties and cities to take a comprehensive, cooperative approach to land use planning. The focus of the GMA is to avoid unplanned growth, and conserve natural resources, while allowing for economic development. Under the GMA, counties, cities, and towns must classify, designate, and regulate critical areas through Critical Areas Ordinances (CAOs). Any of the five types of critical areas may serve as fish, wildlife, or sensitive plant habitat:

Wetlands

- Aquifer recharge areas
- Frequently flooded areas
- Geologically hazardous areas
- Fish and wildlife habitat conservation areas

All regulated habitat areas should be identified during the project development phase. Some local jurisdictions may have fish and wildlife habitat regulation inventory maps. These maps identify what types of habitat the jurisdiction regulates, indicate where all the inventoried habitat areas are, and identify the regulations relating to the management and development of these areas. If available, these maps should be reviewed to help identify critical areas.

The GMA also requires counties and cities that meet certain population and growth rate criteria to adopt planning policies and comprehensive plans. WDFW makes recommendations for comprehensive plan contents related to fish and wildlife habitat and critical area regulations, but local jurisdictions develop the final plans and regulations. The result is inconsistencies in regulations among jurisdictions. Unless the local laws conflict with state law, WSDOT must be consistent with local regulations. Local planning departments should be contacted to determine requirements that could affect a project. See Section 451.02 for details on the GMA.

436.03 Policy Guidance

(1) Transportation Commission Policy

The Transportation Commission's Policy Catalog contains a specific policy on fish and wildlife protection. Policy 6.3.3 states that: "Efforts will be made to mitigate the potential adverse effects that transportation activities can have on fish and wildlife populations." WSDOT intends to "protect, restore, and enhance, where feasible, fish and wildlife habitat and populations within transportation corridors." Action strategies are to:

- Conduct a study to inventory transportation barriers to fish passage; establish criteria for identifying which barriers pose the most significant environmental harm; prioritize the removal of identified transportation barriers; and seek program funding for fish passage barrier removal.
- Identify transportation corridors with significant wildlife losses due to "road kill" or habitat impacts and develop strategies for reducing wildlife losses within these corridors.
- Improve interagency communications, consultations and agreements on habitat protection issues.
- Minimize impacts to natural habitats in design, construction, and maintenance activities.

(2) Washington State Habitat Connectivity Policy – Executive Order

The construction and operation of a system of roads can have significant ecological effects on many wildlife species. Road systems often create barriers that hinder animal movement within their range. Habitats must be accessible, continuous, of sufficient size to sustain wildlife populations. Maintaining access to quality habitat is essential for the long term conservation of many species.

WSDOT is currently developing a policy that will help minimize the effects of transportation projects on wildlife habitat connectivity.

This policy will improve connectivity by rectifying existing problems and incorporating guidance into transportation planning, project development, and operation of the transportation system. This policy is expected to be signed into effect as an Executive Order by summer 2005.

436.04 Interagency Agreements

(1) MOA between WDFW and WSDOT — Construction of Projects in State Waters

The June 2002 Memorandum of Agreement (MOA) between WSDOT and
WDFW addresses construction work in state waters. The MOA is designed to
provide a mutual understanding between the agencies for the application and
acquisition of Hydraulic Project Approvals, and establishes procedures to
comply with WAC 220-110 (Hydraulic Code Rules). The MOA replaces the
1996 MOA concerning work in watercourses and the 1990 MOU between
WSDOT and WDFW.

Implementation of the MOA is intended to facilitate cooperation and dialogue between the signatory agencies.

The MOA also defines what constitutes an emergency, how the emergent situation must be declared, and how to obtain verbal notice and approval from WDFW to do work during emergencies. The MOA is online at:

http://www.wsdot.wa.gov/environment/Programmatics/docs/MOA_Final.pdf

MOU between Washington State Departments of Fisheries, Wildlife, and Transportation, Concerning Construction of Projects in State Waters (RCW 77.55.100 and WAC 220-110) June 2002.

The Legislature has tasked WDFW and WSDOT with developing a series of programmatic General Hydraulic Project Approvals (GHPAs) for common maintenance and construction activities. An informal document agreed to on June 25, 2004 describes and clarifies issues that arise during permit negotiations and on-the-ground implementation. See Section 540.15 for current programmatic GHPAs. The process agreement is online via WSDOT/Environmental/Programmatic Permits:

http://www.wsdot.wa.gov/environment/Programmatics/default.htm

Or by direct link:

- http://www.wsdot.wa.gov/environment/Programmatics/docs/GHPADevelopmentProcess.pdf
- (2) Alternative Mitigation Policy Guidance Interagency Implementation Agreement
 The purpose of this February 2000 agreement between WDFW, Ecology, and
 WSDOT is to describe consensus on mitigation policy among the agencies
 responsible for aquatic resource mitigation. See Section 437.04 for details.

(3) Other Interagency Agreements

For other agreements related to fish and wildlife, see Section 431.04 (water resources) and Section 437.04 (wetlands). See Appendix E for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-making Process.

436.05 Technical Guidance

(1) Discipline Reports

WSDOT' is currently developing a Discipline Report Checklist for Fish, Wildlife, and Vegetation Discipline Reports. Upon completion, it will be added as an Exhibit herein. WSDOT is also developing a generic Scope of Work for consultant contracts regarding the preparation of fish and wildlife discipline reports and Biological Assessments. Both of these technical guidance documents will be added to future editions of the EPM.

Components of the Biology/Wetland Discipline Report address fish, wildlife, and habitat. This report is described in **Section 437.05(3)**.

(2) FHWA

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including water body modification and wildlife impacts, and threatened or endangered species. For details, see FHWA's web page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, and select T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(3) ESA Procedures

All WSDOT projects are required to comply with the ESA. All projects are subject to Section 9 of the ESA (prohibited acts). If the project has a federal nexus such as federal funding or permitting, it is also subject to Section 7 of the ESA. WSDOT has made ESA compliance an agency-wide priority. Coordination between various WSDOT offices will increase the efficiency and effectiveness of the ESA analysis.

WSDOT identifies potential impacts to listed or proposed species associated with a proposed action and then attempts to avoid, minimize, or eliminate these impacts. For some actions, WSDOT conducts preliminary environmental reviews to identify likely impacts early in the project design. This approach allows for design adjustments if impacts to listed or proposed species are identified.

(a) 4(d) Rule

In June 2000, NOAA Fisheries adopted a rule under Section 4(d) of the ESA. This rule prohibits the take of 14 salmon and steelhead

Evolutionarily Significant Units (ESUs) in the Pacific Northwest. Eight of these ESUs are in Washington State. The 4(d) rule was published July 10, 2000 (65FR 42422).

The rule applies to any agency, authority, or private individual subject to U.S. jurisdiction. However, the take prohibition is not applied to threatened species when the take is associated with a NOAA Fisheries-approved program (one of the 13 "limits"). The 13 limits can be considered exceptions to the 4(d) take prohibition. NOAA Fisheries has determined that these programs, activities, and criteria will minimize impacts on threatened steelhead and salmon enough so additional federal protection is not needed. NOTE: If there is a federal action agency, Section 7 consultation is still required.

NOAA Fisheries will periodically monitor these activities to ensure they continue to qualify under the 4(d) limit. Entities that have been granted a take limit for their activities must conduct monitoring to ensure they remain consistent with the approved plan or program. The 13 limits include:

- ESA Permits.
- Ongoing Scientific Research (expired March 7, 2001).
- Fish Rescue and Salvage Actions (limited to agency or official personnel or their designees).
- Fishery Management (limited to fishery management agencies).
- Artificial Propagation (federal or state hatcheries).
- Joint Tribal/State Plans (covering aspects of fishery management).
- Scientific Research Activities (either permitted or conducted by the state).
- Habitat Restoration (if part of a state-certified watershed conservation plan).
- Water Diversion Screening (must comply with NOAA Fisheries' *Juvenile Fish Screening Criteria*).
- Routine Road Maintenance (equivalent or better to Oregon State Department of Transportation program).
- Portland Parks Integrated Pest Management (specific to Portland Parks).
- Municipal, Residential, Commercial, and Industrial Development and Redevelopment.

WSDOT's routine, unscheduled, and emergency/disaster maintenance activities are covered under the Routine Road Maintenance limit because WSDOT cooperated with 29 other agencies to develop a Regional Road Maintenance Program (RRMP) that received NOAA approval on August 15, 2003. The program defines general practices (such as adaptive management, monitoring, and training) and specific practices (such as BMPs) that WSDOT will use to avoid adverse impacts to the aquatic environment.

The WSDOT program is described in the Regional Road Maintenance Endangered Species Act Program Guidelines, which can be found at:

http://www.wsdot.wa.gov/

Click on Environmental, then Regional Road Maintenance Endangered Species Act Program Guidelines.

Or by direct link:

http://www.wsdot.wa.gov/maintenance/roadside/esa.htm

(b) Section 7 Compliance

All projects with a federal nexus are subject to Section 7 of the ESA and an analysis is required to ensure compliance with the ESA. WSDOT acts on behalf of FHWA and the Corps for Section 7 interagency coordination. Depending on the level of impacts, preparation of a "no effects" letter and/or a biological assessment (BA) will be required. Projects requiring a BA could be covered under an existing Programmatic Biological Assessment (PBA), and/or they could require the completion of an individual BA.

Depending on the level of impact identified in the above documentation, informal or formal consultation with the Service (NOAA Fisheries/USFWS) may be required. Guidance on the consultation process for WSDOT projects is being developed by WSDOT, FHWA, NOAA Fisheries, and USFS.

For projects with a federal nexus, the project biologist – either a WSDOT biologist or a consulting biologist – conducts a preliminary evaluation to determine the level of project impacts and the appropriate documentation. If the project is not covered by an existing PBA, the biologist first prepares a project-specific species list. Typically, this list is determined by either obtaining the list from USFWS Western Washington Office's web site (for western Washington counties) or providing a written request to the USFWS Spokane Field Office (for eastern Washington counties), reviewing the NOAA Fisheries species list and reviewing the Priority Habitats and Species (PHS) and Natural Heritage Program (NHP) databases. USFWS Species lists for the western Washington Counties are now available online at the USFWS web site:



http://westernwashington.fws.gov/se/mainpage.htm

WSDOT may also prepare its own USFWS species list by reviewing PHS and NHP data and by using local knowledge.

WSDOT regional offices and Washington State Ferries (WSF) can receive copies of the NOAA Fisheries list from the ESO. A NOAA Fisheries list can also be created from information provided at the NOAA Fisheries Northwest Region web site:



http://www.nwr.noaa.gov/

Click on Summary of Salmon & Steelhead Listings (under ESA Information).

Or by direct link:

http://www.nwr.noaa.gov/1salmon/salmesa/pubs/1pgr.pdf

This project species list identifies the federally listed, proposed, and candidate species, and designated and proposed critical habitat potentially present in the project vicinity. The USFWS list could include fish, wildlife, and plant species. The NOAA Fisheries list could include fish and marine mammal species. The project biologist needs to contact local experts (federal, state, and tribal biologists) for additional species occurrence information.

The project species list is only considered current for 180 days. If the Section 7 documentation is not completed within this 180-day period, an updated list must be obtained.

The project biologist should discuss the proposed activity with the design engineer and obtain project plans and maps. The biologist conducts a site visit to evaluate habitat conditions and identify potential impacts from the project. The project biologist determines if suitable habitat for listed or proposed species is present in the project vicinity.

If suitable habitat is present, the project biologist determines if species surveys are necessary. Often surveys must take place within a specified timing window (such as when a plant is flowering or when a species is most active) or a survey protocol may be in effect. Existing survey timing windows and protocols typically apply to species under USFWS jurisdiction and are determined by the USFWS. If surveys are necessary, the project biologist identifies the survey timing window and/or survey protocol. Because survey timing windows could affect project timelines, the project biologist should discuss survey schedules with the design engineer.

During the site visit, the project biologist should also note any state-listed rare and sensitive plants and/or special habitats and take photos of the project area. Agency and/or tribal biologists should be consulted to further evaluate the potential for species occurrence. Following this preliminary evaluation, the project biologist determines what level of documentation is appropriate. After species habitat and occurrence is determined, the project biologist determines whether or not timing restrictions will be necessary.

No Effect Letters (1)

If, during the preliminary evaluation, the project biologist determines there will be no impact to federally listed species (all species under NOAA Fisheries and/or USFWS jurisdiction) the biologist writes a "no effects" letter to FHWA. For example, if the project is determined to have no effect on all species under NOAA Fisheries jurisdiction but may impact one or more species under USFWS jurisdiction, a "no effects" letter would be written only for NOAA Fisheries species. Preparation of a BA would be necessary for the USFWS species unless the project is covered under an

existing PBA. WSDOT's No Effect Letter Checklist (Exhibit 436–3) details the information to be included.

(2) Programmatic Biological Assessments

The purpose of PBA development is to streamline the Section 7 consultation process. PBAs are designed to receive advance concurrence from the Services (USFWS and NOAA Fisheries) on certain road maintenance, preservation, and improvement programs that are likely to be implemented in the future. They cover only those projects which can meet the effect determinations, project conditions, and conservation measures described in the PBA. USFWS and NOAA Fisheries species are addressed in separate PBAs.

Currently three PBAs either are in production or have been completed. Two PBAs address species under USFWS jurisdiction: the Eastern Washington PBA (approved and in use), and the Western Washington PBA (under review). WSDOT's statewide NOAA Fisheries Aquatic PBA has been removed from use as of January 16, 2006. WSF's aquatic PBA is being reviewed internally.

After completing the preliminary evaluation, the project biologist should determine if a PBA is in place in the region where the project is located. Then, the biologist should determine if the project meets the conditions of the PBA for the species covered under the PBA. If the project can be addressed under a PBA, the project biologist ensures that the potential effects do not exceed anticipated levels and assigns the appropriate conservation measures which are to be included as part of the project. The project-level evaluation is documented using WSDOT's PBA determination form. Photos and a vicinity map are attached to the determination form and it is sent to the Service. Individual project consultation with the Service is not necessary. After completion of the first ten projects covered under each PBA, WSDOT plans to meet with the Services to discuss the projects and the PBA process. Thereafter the meeting is held annually.

If any listed or proposed species or critical habitat not covered under the PBA could be impacted by the project, an individual BA may be required. The Service should be consulted to see if an individual BA will be necessary. For controversial or high profile projects, the project biologist may choose to complete an individual BA even if the project is covered under the PBA. Projects which occur on federal lands may also require an individual BA.

(3) Individual Biological Assessments

An individual BA must be prepared if the proposed activity has a federal nexus, could impact a listed or proposed species or its

critical habitat, and is not covered in part or entirely under an existing PBA. Occasionally several similar projects (such as bridge scour repair projects) are "batched" into one BA to streamline the review process.

A BA is an evaluation of the potential impacts of a specific project on federally listed threatened, endangered, and proposed species and designated and proposed critical habitat. A Biological Evaluation (BE) is a similar document, usually required when addressing sensitive species on Federal lands (see Section 436.05(5)). However, the U.S. Army Corps of Engineers uses the term BE to describe a BA submitted for informal consultation. The basic purpose is to evaluate potential effects and determine the need for consultation. WSDOT's BA Checklist (Exhibit 436-3) details the information to be included.

For each listed species evaluated, the BA must arrive at one of three conclusions:

- The action will have "no effect" on the species;
- The action "may affect, not likely adversely affect" the species; or
- The action "may affect, likely adversely affect the species.

The BA must also address the effects on any proposed species or proposed critical habitats in the project action area. For proposed species, the BA must determine whether or not the action will "jeopardize the continued existence" of the species. For proposed critical habitat, the BA must determine whether or not the action will "destroy or adversely modify" proposed critical habitats. If a "jeopardy" or "will destroy or adversely modify" determination is made, the project can not go forward as proposed. It is unlikely that a WSDOT project would ever reach this level. A conditional effect determination must be made in the BA for each proposed species or critical habitat as well.

The BA will be submitted to the appropriate Service (USFWS or NOAA Fisheries) depending on the species addressed. A transmittal letter written on behalf of the federal nexus agency is included with every BA. The cover letter should include a brief project description and a determinations summary. If during the evaluation, the project biologist determines that formal consultation is necessary, the consultation must be requested by the federal action agency.

If the project BA includes "may affect, not likely to adversely affect" determinations but no "may affect, likely to adversely affect" determinations, informal consultation is required. For informal consultation, the NOAA Fisheries/USFWS reviews the BA and either concur or not concur with the determinations. If the agency concurs in writing, then no further consultation is needed. The agency may request additional information before giving concurrence and the project biologist should respond to such requests.

If the project BA includes any "may affect, likely to adversely affect" determinations or if during the informal consultation process NOAA Fisheries/USFWS does not concur with a determination and determines that there is a "may affect, likely to adversely affect" situation, then formal consultation is required. If the project biologist determines that formal consultation is necessary, the consultation must be requested in the cover letter transmitted through FHWA. Formal consultation is then initiated through a written request by the federal nexus agency. During the formal consultation, NOAA Fisheries/USFWS may recommend modifications to eliminate or reduce adverse effects. If effects can be reduced to an insignificant or discountable level, then consultation can proceed informally. Formal consultation ends with NOAA Fisheries/USFWS preparing a biological opinion (BO). This document may include:

- Reasonable and Prudent Alternatives (RPAs). Actions recommended to avoid jeopardy/adverse modification.
- Incidental Take Statement. Specifies the amount/extent of takings authorized, requires RPAs, and sets terms and conditions.
- Re-initiation Clause. Included in case there are changes or new information.

The BO is an in-depth document that identifies whether or not the action "is likely to jeopardize the continued existence of a listed species or adversely modify critical habitat." If the action is not likely to jeopardize the continued existence of a listed species or adversely modify critical habitat, the project may proceed, provided it follows the terms and conditions outlined in the BO. The formal consultation process must be completed within 135 days, although extensions are possible.

(4) Conference

Conferencing occurs when an action may affect a proposed species or critical habitat. Conferencing can occur at the same time as consultation, or separately depending on the status of the project and timing of proposed listing. If a species or critical habitat is proposed prior to the completion of the action, but after consultation has occurred, a request for conference should occur. See Regional or Headquarters biology staff on how to proceed if conference is necessary.

(5) ESA Consultation Tracking Sheet

The WSDOT Environmental Services Office (ESO) manages the consultation status of WSDOT projects throughout the State. The purpose of the Tracking Sheet is to estimate workload for both WSDOT and the Services in the consultation process, and also to identify which projects are not meeting deadlines. The Tracking Sheet is updated by ESO on a monthly basis, and is usually distributed in the first week of every month.

(c) Section 9 Compliance

Section 9 of the ESA prohibits the "take" of listed species. To ensure Section 9 compliance, projects with no federal nexus must avoid the take of threatened and endangered species. The take of threatened species may be allowed under certain circumstances if a 4d rule applies to the situation.

(d) References on ESA Compliance

The references described below may be useful in understanding ESA requirements and preparing biological assessments:

WSDOT ESA Handbook – Endangered Species and Transportation Handbook - An Introduction to Understanding the ESA in Relation to Transportation Projects, WSDOT Environmental Services Office, February 2001 as amended. This document provides an overview of the ESA, agency coordination, impact analysis, and the recent salmonid listings. It contains several flowcharts and appendices including recent updates to WSDOT's Local Agency Guidelines (LAG) manual (M 36-63) and the BA Review Checklist.

WSDOT Environmental Services Office Homepage – This web site contains WSDOT policy guidance specific to the ESA, legislative initiatives, regulatory compliance, and information on water quality, wetlands, and cultural resources. It includes the ESA Stormwater Effects Guidance and the 2004 Highway Runoff Manual (M31-16) and links to WSDOT's Permits and Documentation Coordination Program, with reference to environmental regulations, procedures, and policies.

http://www.wsdot.wa.gov/

Click on Environmental.

Or by direct link:

http://www.wsdot.wa.gov/environment/

Stormwater Effects on Listed Species – WSDOT's Instructional Letter (#IL 4020.02), Stormwater Effects Determinations, communicates the interim agreements reached with NOAA Fisheries, USFWS, and WSDOT regarding stormwater effects on fish species listed under the ESA. It is incorporated into WSDOT's Highway Runoff Manual (M31-16).

Highways and Local Programs (HLP) Environmental Web Site – This web site contains information on various environmental issues related to HLP activities. A biological assessment tracking sheet which reports the status in the concurrence process of BAs for various HLP projects can be found here. It also provides links to threatened and endangered species web resources and the ESO homepage.

http://www.wsdot.wa.gov/

Click on Search, then Site Index, then H, then Highways and Local Programs, then Environment.

Or by direct link:

http://www.wsdot.wa.gov/TA/Operations/Environmental/ EnviroUpdates.html

FHWA Guidance - The FHWA Guidelines for the Fulfillment of Interagency Cooperation Under Section 7 of the Endangered Species Act (January 1988), describes Section 7 requirements and their relation to the federal highways program. It includes the FHWA Endangered Species Flowchart, which displays the ESA Section 7 consultation process as it applies to the Federal Highways Program. See Exhibit 436-4.

An earlier version of these guidelines is accessible in pdf format on FHWA's Environmental Guidebook along with the Federal Interagency Memorandum of Understanding (MOU) for Implementation of the ESA (November 8, 1994) and other documents on endangered species. Online at FHWA's web site:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Endangered Species.

Or by direct link:



http://environment.fhwa.dot.gov/guidebook/chapters/V1ch4.htm

USFWS Endangered Species Homepage – This web site contains various useful documents such as the ESA Section 7 Consultation Handbook and Recovery plans.



http://www.fws.gov/

Click on Endangered.

Or by direct link to:



http://endangered.fws.gov/

NOAA Fisheries Homepage – Refer to this site for NOAA Fisheries species list requests. Other information on threatened and endangered species under NOAA Fisheries jurisdiction can be found here.



http://www.nwr.noaa.gov/

Essential Fish Habitat (EFH) Consultation (4)

For WSDOT projects with a federal nexus that may have an adverse effect on EFH, consultation is required. To streamline the process, EFH consultation can occur through the NEPA, EA, ESA, or other federal process agreed upon by NOAA Fisheries and the federal action agency.

To achieve a streamlined approach, WSDOT is currently combining EFH consultations on FHWA-funded projects with ESA Section 7 consultation. Since the biological assessment contains a detailed analysis of project impacts to critical habitat and the environmental baseline, it should already address most requirements of the EFH impact analysis. The EFH section in the BA therefore is not expected to exceed one page in length. The EFH analysis must include:

A brief introductory paragraph describing why addressing EFH is required.

- A definition of the EFH designation for the fisheries potentially affected by the project.
- An identification of the fish species likely to occur in the project area and a brief description of their use of the project action area (significant prey species like Pacific sand lance should also be considered).
- A brief statement of potential impacts to EFH.
- A determination of effect for EFH (either "no adverse effect" or "adverse effect").

If the determination of effect is "adverse effect", NOAA Fisheries must provide EFH conservation recommendations to the federal agency that submitted the environmental documentation. The federal action agency must then provide a detailed written response within 30 days after receiving them (or at least 10 days prior to final approval of the action, if a decision by the federal agency is required in less than 30 days. The written response must include a description of avoidance measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. If the response is inconsistent with the recommendations made by NOAA Fisheries, adequate justification for not following the recommendations by NOAA Fisheries must be provided. If the federal action agency determines that an action or proposed action will not affect EFH, no consultation is required.

For WSDOT projects with no federal nexus, EFH consultation is voluntary. In situations where non-federal actions occur in areas under a NOAA Fisheries approved Conservation Plan, NOAA Fisheries participation in, and approval of the Plan would be combined with the EFH consultation and would constitute NOAA Fisheries requirements of the Magnuson-Stevens Act for providing advisory conservation recommendations to state agencies. Included in this scenario would be coordination with Section 4(d) rulemaking, Section 4(f) recovery planning, and Section 10 permitting under the ESA.

(5) Projects on Federal Forest Land or Resource Areas—Biological Evaluations WSDOT projects involving any ground-disturbing activities on federal forest land or resource areas covered by the National Forest Plan must consider potential impacts to the northern spotted owl and other "survey and manage" species within the range of the northern spotted owl. These are species associated with old-growth forests that are afforded special management consideration under the Northwest Forest Plan.

The agency responsible for the affected forest (USFS) or resource area (BLM) should be contacted to obtain a species of concern list. Before any ground disturbing activity can occur, surveys must be performed for each managed species that may be present in the project area. Surveys may take up to a year to complete.

(a) Biological Evaluation Requirements

If it is suspected that an action or proposed action may affect a sensitive species, a biological evaluation (BE) must be written in addition to the NEPA documentation and BA. The BA and BE can be integrated into one document which the USFS or BLM can submit to NOAA Fisheries and USFWS for ESA Section 7 compliance. The main objectives of the BE

are to reduce negative impacts and increase mitigation opportunities for sensitive species, to ensure that USFS/BLM actions do not decrease the viability of native or desired non-native plant or animal species, and to ensure that actions will not lead to the federal listing of species.

(b) Contents of a Biological Evaluation

A BE must include the following:

- An identification of all USFS and BLM sensitive species and federally listed and proposed species and their habitat potentially affected by the proposed activity.
- An identification and description of habitat within the area needed to meet USFS/BLM objectives for sensitive species.
- An analysis of the direct, indirect, and cumulative effects of the proposed action (including mitigation) on species or habitat essential to meet USFS/BLM objectives.
- A determination for each sensitive species of either "no impact"; "beneficial impact"; "may impact individuals, but not likely to cause a trend toward federal listing or loss of viability"; or "likely to result in a trend toward federal listing or loss of viability". Discussion of the process and rationale for the determination, including documentation of any contacts with other agencies or data sources whose information was utilized in the impact determination.
- Recommendations for reducing negative impacts and beneficial mitigation measures.

(c) References on Biological Evaluations

USFS Manual – This manual, with further guidance on writing BEs, is online at:



http://www.fs.fed.us

Click on Publications then Forest Service Manual and Handbook.

Or by direct link:



http://www.fs.fed.us/im/directives/

BLM Homepage -contains information on the Northwest Forest Plan, the National Forest Management Act, and species of concern:



http://www.or.blm.gov/

FHWA Fish and Wildlife Coordination Flow-chart - This flowchart (December 1998) provides guidelines for compliance with the Fish and Wildlife Coordination Act (see Exhibit 436-1).

(6)State Priority Habitats and Species (PHS)

The PHS program is managed by the WDFW. It designates species and habitat considered to be priorities for conservation and management. State priority habitat is a habitat type with unique or significant value to many species. State priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational,

commercial, or tribal importance. Priority species can be state-listed as candidate, or sensitive species; species of tribal, recreational, or commercial importance; or species vulnerable to significant population declines because of aggregation habits (vulnerable aggregates). Species can be considered priority species only in certain locations, such as a breeding area, that are called priority areas.

The PHS program is designed to provide information to local governments, state and federal agencies, private landowners, consultants, and tribal biologists for land use planning purposes. PHS data is used by local jurisdictions to help meet the requirements of the Growth Management Act. Many local jurisdictions have a fish and wildlife ordinance in place to protect these species and habitats. PHS data is part of WSDOT's BA review process and is also considered in some jurisdictions' comprehensive plans. Impacts to PHS species and habitats should be evaluated and local WDFW biologists should be consulted by WSDOT during the project development phase.

WDFW also has maps showing shellfish, forage fish, and spawning habitat, which can be useful for WSF projects and other WSDOT projects which interface with marine environments.

Information on the PHS program can be found on the WDFW homepage:



http://wdfw.wa.gov

Click on Habitat, then Priority Habitats and Species.

Or by direct link:



http://wdfw.wa.gov/hab/phspage.htm

(7) Washington Natural Heritage Program

The Washington Natural Heritage Program (WNHP) is a division of the Department of Natural Resources. The WNHP collects data about existing native ecosystems and rare plant species in Washington State. It develops and recommends strategies for protecting native ecosystems and plant species most threatened in the state. Natural heritage data is part of WSDOT's BA review process. Impacts to natural heritage habitats and species should be evaluated during the project development phase. Information on the WNHP can be found at the WDNR's home page:



http://www.dnr.wa.gov/

Click on Programs and Topics, then Natural Heritage Program.

Or by direct link:



http://www.dnr.wa.gov/nhp/index.html

(8) Mitigation

WSDOT practice is to minimize impacts to wildlife, fish, sensitive plants, and their habitat. Unavoidable impacts may require mitigation, which is planned during project design. During the mitigation design, coordination between offices is necessary. The designer should work closely with the regional environmental office. Mitigation can involve:

- Designing vertical and horizontal road alignment shifts and modifications to avoid sensitive habitats.
- Installing wildlife overpasses.
- Replacing culverts that impede fish passage.
- Including fish baffles in culverts.
- Reducing clearing limits to save significant trees and other native habitats such as grasslands and prairies.
- Installing wildlife reflectors or other measures to reduce vehicle/animal collisions.
- Habitat improvements including native plantings and placing large woody debris in streams.
- Providing wildlife fencing where accident statistics indicate the need.
- Evaluating the placement of concrete barriers to assess impacts to wildlife and provide for public safety. (See Exhibit 436-5).

Long-term maintenance needs should be considered when designing sustainable mitigation systems.

(9) Other Useful Guidance

Salmon Recovery Strategy (a)

Salmon Habitat Protection and Restoration Standards and Guidelines, May 1999 (Draft Five-Year Work Plan – WDFW, Ecology, and WSDOT). This work plan is part of Washington's salmon recovery strategy (Governor's Salmon Recovery Office, 1999). It addresses the need for permit streamlining, improved comprehensive stream corridor management, and policy development in response to the ESA listings of salmonids.

Statewide Strategy to Recover Salmon, September 1999. A long-term guide developed by the Washington State Joint Natural Resource Cabinet to identify the actions needed to recover salmon in Washington State. This and other salmon-related documents can be found at:



http://www.governor.wa.gov/

Click on Enhancing Natural Resources, then Related Links, then Salmon Recovery, and finally Documents and Publications. Both a summary and full version are on the web site.

Or by direct link:



http://www.governor.wa.gov/gsro/strategy/longversion.htm

(b) Concrete Barrier Placement Guidance

The placement of concrete barriers in locations where wildlife frequently cross the highway can influence wildlife mortality and traffic safety. Concrete barriers of varying heights can be difficult for wildlife to cross. When wildlife encounter physical barriers, they often travel parallel to the barrier, remaining on the highway longer and increasing the risk of

wildlife/vehicle collisions or vehicle/vehicle collisions as motorists attempt to avoid them.

To address public safety and wildlife concerns, the ESO and Design Offices have developed guidance to determine if concrete barrier placement requires an evaluation of the effect on wildlife by environmental staff. This guidance has been incorporated into WSDOT's Design Manual (see Exhibit 436-5). Coordination between the Design Office and the ESO must occur early in the Project development process to allow adequate time for discussion of options.

(c) WSDOT Resources

WSDOT GIS Workbench – Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available databases include: Water Resource Inventory Areas (WRIAs), critical habitats for marbled murrelet and northern spotted owl, spotted owl special emphasis areas, Evolutionarily Significant Units (ESUs), PHS data, habitat conservation projects, fish passage barriers, outdoor recreation projects, wildlife and recreation projects, the Lower Columbia River Conservation Initiative Boundary, and heritage plants. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

Automated Training System – This program provides standard recommended courses for biologists including an ESA and Transportation course. A special ESA class is offered for maintenance employees. Additional courses may be offered in the future including an advanced course on ESA and Transportation.

Roadside Manual – This WSDOT manual (M25-30) includes definitions of federally designated lands (Chapter 410) and discusses roadside vegetation design and management (Chapter 800).

Local Agency Guidelines – This manual (M36-63, June 1998) provides local agencies with statewide policies and standards to follow when using FHWA funds for transportation projects. Chapter 24 addresses environmental processes and contains an Environmental Classification Summary checklist (ECS), as well as NEPA guidelines and flowcharts. Recent updates (March 15, 1999) to this chapter are included on the

electronic version; they are also included in WSDOT's An Introduction to Understanding the ESA in Relation to Transportation Projects (WSDOT, 2001 as amended).



Click on Search, then Site Index, then H, then Highways and Local Programs, then LAG.

Or by direct link:



http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.HTM

Roadside Classification Plan 1996 – The partial intent of this document is to provide guidance for the protection and restoration of Washington State's natural environment and heritage resources within the state highway ROW.

WDFW Resources (d)

Fish Passage – WDFW Fish Passage Design at Road Culverts, May 2003. A design manual for fish passage at road crossings, online at:



http://wdfw.wa.gov

Click on Habitat, then Upstream Fish Passage at Dams and Culverts (under Technical Assistance for Habitat Protection), then Fish Passage Design at Road Culverts.

Or by direct link:



http://wdfw.wa.gov/hab/engineer/cm/

Streambank Protection – WDFW Integrated Streambank Protection Guidelines, April 2003. This workbook provides guidance for responses to eroding stream and river banks. It presents an ecological approach to the management of stream banks and associated uplands.

Various Species Status Reports and Management Plans – These documents typically contain guidelines and recommendations for the conservation and management of state listed and/or priority species.

FHWA Environmental Guidebook (e)

In addition to its ESA information, FHWA's online Environmental Guidebook contains documents on wildlife, habitat, and ecosystems. Topics include biodiversity, ecosystem management, and ecological mitigation. See also Watershed Management and Endangered Species. Available on FHWA's web site:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Index, then Wildlife, Habitat and Ecosystems, Watershed Management or Endangered Species.

Or by direct link:



http://environment.fhwa.dot.gov/guidebook/index.htm

436.06 Permits and Approvals

Permits relating to Wildlife, Fish, and Vegetation are addressed in the following sections:

Federal

Section 520.09 – Section 7 Consultation

Tribal

 Section 530.02 – Tribal treaty rights (usual and accustomed hunting and fishing grounds)

State

- Section 540.15 Hydraulic Project Approval (including streamlined process for Fish Habitat Enhancement Projects)
- Section 540.16 Aquatic Lands Use Authorization
- Section 540.25 Other State Approvals (Beaver Trapping on WSDOT Property)

436.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road systems. For ferry projects, WSF must follow strict guidelines in order to work in near-shore environments. These guidelines include avoidance of eelgrass and spawning habitat, restrictions on construction materials, and specific BMPs. Removal of creosote associated with docks, pilings, and piers from the aquatic environment is a high priority for the resource agencies.

Public-use airports must address specific wildlife hazards on or near airports. These issues are addressed in the Federal Aviation Administration (FAA) Publication, *Hazardous Wildlife Attractants On or Near Airports* (No. 150/5200-33A, July 27, 2004). Online at:



Search for 150/5200-33A

Or by direct link:



436.08 Exhibits

Exhibit 436-1 – Fish and Wildlife Coordination Flowchart - Federal Highway Program.

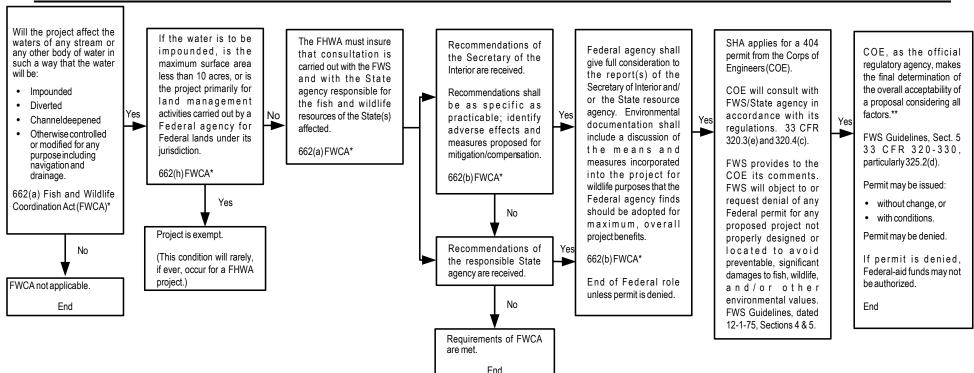
Exhibit 436-2 - No Effects Letter Checklist.

Exhibit 436-3 – Biological Assessment Checklist.

Exhibit 436-4 – Guidelines for the Fulfillment of Interagency Cooperation Under Section 7 of the Endangered Species Act.

Exhibit 436-5 – Guidance on Placement of Concrete Barriers.

Fish and Wildlife Coordination Flowchart Federal Highway Program



Source: USFWS, December 17, 1998.

- * Section references to 16 USC 661-667(d). If the proposed project affects water resources that are covered by the FWCA, it should be recognized that a 404 permit will also be required. If the recommendations of the FWS/State agency can be accommodated and a mitigation commitment made in the environmental document, then the re-examination of FWCA issues at the 404 permit statge should be routine unless project or policy change has occurred. If resolution cannot be obtained during the environmental process, then the objection of the FWS/ State agency can be expected at permit time.
- ** The EPA may review the permit and if necessary, veto it in accordance with Section 404(c) of the Clean Water Act.

"No Effect" Letter Checklist

Project Name:	
Region, City or County:	
Biologist Name, Affiliation and Phone Number: _	
Contact Name, Agency/Region, Phone Number: _	
General Comments:	

Typically, the "no effect" letter (NEL) should be two to three pages in length, depending on the complexity of the proposed action. The purpose of the NEL is to document and support the "no effect" determination(s). The focus of a NEL should be a brief but complete project description, species habitat and occurrence information, analysis of project impacts, and justification for the "no effect" determination. The NEL should end with this language, "It is our understanding that this satisfies our responsibilities under Section 7 (c) of the Endangered Species Act at this time, and we are sending you this copy of our assessment for your files. We will continue to remain aware of any change in status of these species and will be prepared to re-evaluate potential project impacts if necessary."

Key:

SUF = Sufficient information contained in the NEL;

INC = Incomplete or insufficient information to justify "no effect" determination;

MIS = Missing information that is key to addressing potential impacts and justifying the "no effect" determination.

N/A = Not Applicable, the project does not require this information to justify the "no effect" determination, or does not apply.

Remember, the level of detail should be commensurate with the effects of the action.

No Effect Letters Should Include The Following Information:

SUF	INC	MIS	N/A		
				A.	Describe the overall purpose of the project and a brief summary of project objectives. Estimate the duration and the dates that the project will occur.
				В.	Cite species listings provided by NMFS and/or USFWS. Append a copy of the listing to the report. Species listings should be updated every 6 months (listings must not be more than 6 months old) or if there are status changes.
				C.	Provide a legal description (Section, Township, Range) and vicinity map that clearly shows the project in relation to nearby waterbodies, sensitive habitats, etc.
				D.	Photographs, especially color copies, are useful to orient the reviewer to the project area. A combination of aerial or orthophotos, and snapshots are ideal.
				E.	List all proposed project related construction activities and types of equipment. Describe expected noise and disturbance issues. Estimate timing (daylight/nighttime) of project activities. Include all phases or stages of the project. Include any secondary project features such as mitigation, staging areas, detours, waste and stockpile sites, etc.
				F.	Date of field review(s) of project, personnel involved, and results of visit(s).
				G.	Describe the project setting in terms of physiographic region, general topography, dominant habitat and vegetation type(s), aquatic resources, land use patterns and existing disturbance levels from human activities, roadways, etc.
				Н.	Describe the potential suitable habitat for the species found on-site or in the project vicinity. Reference WDFW PHS data, State salmonid stock inventories, and consult WDFW/Tribal habitat biologists for species use in the project vicinity.
				I.	Include a brief discussion of where EFH is found in the project action area, which species or species groups are within the action area it pertains to, and their use of habitat within the action area.

SUF	INC	MIS	N/A	
				J. Quantify area of habitat disturbance as it relates to the species being addressed. Examples include: vegetation removal (include species and size [height and dbh]), stream substrate disturbance, proposed earthwork, increase in impervious surface, etc.
				K. Discuss why likely impacts to the listed species and their habitat from construction and/or operation of the project will not occur (one paragraph per species).
				L. Discuss why likely impacts to the EFH of each species and/or species group for which it is present in the action area from construction and/or operation of the project will not occur.
				M. A "no effect" determination must be made for each listed species as well as designated critical habitat (if appropriate). It must provide supporting evidence to justify the "no effect" determination. A "no jeopardy" call and a conditional (upon listing) "no effect" determination should be made for proposed species. A "no impact" call should be made for candidate species and species of concern.
				 N. A "no effect" determination must be made for the EFH of each species group for which it is present in the action area, unless the impacts vary by species. Then the effect determination would be made at the individual species level. Note: EFH pertains to both listed and non-listed species.
Comm	ents:			

Revised: April 2005

Biological Assessment Checklist (Version 9a)

t Name:							
n, City o	r County	/ :					
Biologist Name, Affiliation and Phone Number:							
ct Name,	, Agency	/Region	ı, Pho	one Number:			
al Comm	nents: _						
determinations of the determinations of the determination, or the determination of the determ	ation; M of effect. or does no ed informa		issing Not A Ren not sh	contained in BA; INC = Incomplete or insufficient information to justify g information that is key to addressing potential impacts and justifying Applicable , the project does not require this information to justify the effect nember , the level of detail should be commensurate with the effects of the naded, items that are shaded are highly recommended to support the analysis			
	Biolo	gical A	ssess	ments Should Include the Following Information:			
engineer ist, chan	ring jarg melizatio	on with on mean	no e is str	detail the type and scope of action proposed. Use plain language and explanation, for example, signalization and channelization. To a fish aightening and ditching a stream. To a road engineer, it means turn be addressed:			
TNIC	MIC	N T/A					
		N/A	A.	Describe the overall purpose of the project and a brief summary of project objectives. This should be a general statement, and not necessarily the NEPA purpose and need statement.			
			В.	List all proposed project related construction activities and types of equipment. Include sources of loud noise above ambient levels. Include			
	SUF = Sudeterminations of ination, or Require entity the entity the following ination. The following ination is the following ination.	ist Name, Affiliant Name, Agency al Comments: SUF = Sufficient determination; M inations of effect. ination, or does not retify the effect determination. Et Description. engineering jargist, channelization. The following it in the following it	ist Name, Affiliation and the Name, Agency/Region al Comments: SUF = Sufficient information; MIS = Minations of effect. N/A = ination, or does not apply. Required information is ratify the effect determination. Biological Agency/Region Biological Agency/Region Et Description. Describe engineering jargon with ist, channelization means The following items should be a sufficient of the properties of the	ist Name, Affiliation and Phote Name, Agency/Region, Phote Name, Agency/Region, Phote al Comments: SUF = Sufficient information determination; MIS = Missin inations of effect. N/A = Not a ination, or does not apply. Ren Required information is not shatify the effect determination. Biological Assessed Description. Describe in engineering jargon with no exist, channelization means stream The following items should INC MIS N/A INC MIS N/A INC MIS N/A A.			

SUF	INC	MIS	N/A	C.	Secondary project features (i.e. wetland mitigation construction, staging areas, detours, waste and stockpile sites, safety clearing, work trestles and temporary work bridges, and demolition). Include mitigation activities required by regulatory agencies (i.e. WDFW, etc.) that are a part of the proposed actions.
				D.	Include simple plan sheets or overview of alignment showing where work is proposed relative to sensitive areas and/or habitat.
				E.	Quantify area of vegetation removal , include clearing and grubbing, vegetation type, replanting plans. For trees include species and size (height and dbh). Describe both temporary and permanent clearing.
				F.	Provide a chronology of when activities will occur , timing of construction, phasing. Provide hours of operation, specify day or night, time of year (months and year), duration. If details are unavailable, identify a potential work window using the worst case scenario.
				G.	Describe proposed grading and filling or other earthwork, include specific BMPs for erosion, sedimentation, stormwater and spill control. If appropriate, append the TESC Plan, Spill Control Plan, BMP specifications, etc.
				H.	Explain any expected changes to the operation of the facility (i.e., increased traffic, revised use patterns, new maintenance needs, etc.)
				I.	Stormwater treatment information: Stormwater treatment information should not be in its own section but should be included in the project description. It should not be more that a couple of paragraphs long and should address: How much new impervious surface (NIS) is the project creating (including sidewalks, parking lots, etc. for which it is determined that stormwater treatment should be included), and how much of the NIS is being treated for stormwater (% or total amount)? What BMPs are proposed to treat NIS for quality & quantity? What is the receiving area/waterbody and overflow channel for each BMP? What is the amount of existing (pre-project) impervious surface (EIS) in project area? How much EIS is currently (pre-project) treated for stormwater? What BMP's are being used to treat EIS for quality, quantity and what are the receiving areas/waterbody for each BMP? How much of the untreated EIS is proposed for treatment as part of project? What BMPs are proposed for treatment of the untreated EIS identified

SUF	INC	MIS	N/A		above (quality, quantity, receiving area/waterbody)? Is off-site stormwater being treated in WSDOT stormwater facilities under pre-project conditions? If yes, will this treatment continue at the same level under the proposed project? Describe the location of the facilities and outfalls. Include the effects of constructing these facilities in the impact analysis.
				J.	Describe proposed in-water work (below OHWM) and work over waterbodies, and potential for impacts to riparian vegetation. Include conditions and work windows as described in the WDFW Hydraulic Project Approval and/or negotiated with USFWS and NMFS. State clearly if the project does not include any in-water or over water work. Include a figure showing locations of waterbodies potentially affected by proposed in-water work.
Project	Descrip	otion Cor	mments	:	
Descri	ption of	the Pro	ject Ac	tion	Area. The following items should be addressed as appropriate:
SUF	INC	MIS	N/A	A.	Define the Action Area (area of potential impacts, both indirect and direct). The action area is usually larger than the project area or project vicinity (i.e., the river upstream & downstream from a bridge project, waterbodies receiving stormwater, detour routes, wetland or other mitigation sites resulting from project impacts). Include <i>all</i> areas, including mitigation areas and other areas located outside of the immediate project area, that may be affected by project activities.
				В.	Provide a legal description (Section, Township, Range) and vicinity map that clearly shows the project in relation to nearby waterbodies, sensitive habitats, etc.
				C.	Provide the location in the Sixth Field HUC.
				D.	Photographs , especially color copies, are useful to orient the reviewer to the project area. A combination of aerial or orthophotos, and snapshots are ideal.

SUF	INC	MIS	N/A		
				F.	Describe the environmental baseline (current or pre-project) condition of the habitat and the project area. The baseline description should address all pertinent habitat parameters for the species. Where appropriate, address aquatic baseline conditions using the matrix of pathways and indicators (MPI) for the appropriate species. Only address the MPI if in water work will occur and include the actual chart in the body of the document. In the document only address those indicators that may be impacted by the project. Additional information on the rest of the indicators may be provided in the appendix. Decide if the indicators will be addressed at the project level or action area level in addition to the watershed level.
				G.	Describe the project setting in terms of physiographic region, general topography, dominant habitat and vegetation type(s), aquatic resources, land use patterns and existing disturbance levels from human activities, roadways, etc.
				H.	Include information about past and present activities in the area that relate to the species or its habitat and/or the proposed action. This could include past consultations and conservation measures, or species management plans.
Endan should	gered, 7 be based evant sc	Threater	ned and	Pro-spec	posed Species and Designated Habitat Occurrence. The BA cific information about the species and its life history. Be sure to cite research findings as referenced. The following items should be
SUF	INC	MIS	N/A	A.	Cite species listings provided by NMFS and/or USFWS. Species listings should be updated every 6 months (listings must not be more than 6 months old) or if there are status changes. USFWS listings for Western Washington may be obtained from their web site: http://westernwashington.fws.gov/se/SE_List/endangered_Species.asp

SUF	INC	MIS	N/A		
				В.	Identify any listed , proposed species , and designated or proposed critical habitat , that are known or have the potential to occur on site or in the project action area. Cite the Federal Register notice of listing status or proposal for listing. Identify fish by ESU or DPS. Discussion included about individual species should focus primarily on site specific information. Candidate species can be addressed in the appendix.
				C.	Describe the species, its habitat requirements and ecology as it relates to the action area, and relate that to the local populations. A lengthy life history is not required, and can be incorporated by referencing appropriate listing documents. Enough information should be provided to adequately explain the potential impacts.
				D.	Describe the potential suitable habitat and critical habitat for the species found on site or in the project action area and how local populations use it. Discuss the local status of the species as appropriate. Determine the likely level and type of use of the area by each species.
				E.	If a No Effect determination is made based on lack of suitable habitat for a particular species in the action area, this needs to be adequately justified and documented. Discuss the habitat features or types that are available as compared to the habitat features that define suitable habitat for each species.
				F.	If relevant, describe any efforts to determine the status of the species in the project area, including information on survey methods, timing and results of surveys for species or suitable habitat identification. <i>If suitable habitat is present, species presence should be assumed until adequately proven otherwise.</i>
				G.	Include any information received from biologists with special expertise on the species or location, such as WDFW, Tribal, USFS or other local, regional and university fish, wildlife and habitat biologists and plant ecologists. Include conversations cited as pers. comm. in the References section, and document what their expertise is in.
Listed	and Pro	posed Sp	ecies ar	nd Ha	abitat Occurrence Comments:

Analysis of Effects on Listed and Proposed Species and Designated and Proposed Critical Habitat. Provide a thorough analysis of the proposed project on the species and its habitat within the Action Area. The following items should be addressed:

SUF	INC	MIS	N/A		
				A.	Describe how the environmental baseline (current or pre-project condition of the habitat in the action area) will be degraded, maintained or improved (restored). Append the completed NMFS and/or USFWS Checklist for Documenting Environmental Baseline and Effects of Proposed Action(s) on Relevant Indicators. Only address the indicators that will be impacted by the project. Include the matrix of pathways and indicators (MPI) chart in the BA, but place the discussions of the non-impacted indicators in the appendix.
				В.	Direct Effects: Describe and analyze the effects of the action that would directly affect the species, suitable habitat and food resources. Include actions that would potentially remove or destroy habitat, displace or otherwise influence the species, either positively (beneficial effects) or negatively (adverse effects).
				C.	Describe potential for impacts from disturbance (i.e., noise above ambient levels, sudden loud noises, increased human activity), from construction and continuing operation. Construction impacts would be considered direct effects whereas operation noise impacts could be considered indirect effects (occur later in time).
				D.	Indirect Effects: Describe any potential indirect impacts (those that occur later in time) such as impacts to future food resources or habitat, and impacts from increased long-term human access or project-induced growth. The action area must include the extent of these impacts.
				E.	Interrelated and Interdependent Activities: Describe and analyze any potential effects from interdependent actions (actions that have no independent utility apart from the primary action) and interrelated actions (actions that are part of the primary action and dependent upon that action for their justification) on the species or habitat that would not occur "if not for" the proposed action.
				F.	Cumulative Effects: Identify those cumulative effects within the action area (defined as future State or private actions) that are reasonably certain to occur. Cumulative effects are not used to make the effect determination, but must be provided to the Services for their analysis. Please note that this definition differs from that used under NEPA as it does not include future Federal actions. Cumulative effects analyses are required for formal consultations ("likely to adversely affect") only.

SUF	INC	MIS	N/A		
				G.	If species specific recovery, management, and/or watershed plans have been established, address the project in terms of compliance and recommendations.
				Н.	For proposed species , analyze the potential for the project to jeopardize the continued existence of the species. In addition to a jeopardy call the BA should make a provisional effect determination.
				I.	Discuss any potential take of listed species. This must be unavoidable and quantified if an incidental take permit is being requested.
				J.	The BA must contain a distinct statement of the overall effect of the project on each species . It must also provide supporting evidence to justify the effect determination (for listed species) or jeopardy call (for proposed species). The determination must be consistent throughout and worded correctly.
Analys	sis of Eff	fects on l	Listed S	peci	es Comments:

Analysis of Impacts on Candidate Species, Species of Concern and Other Sensitive Wildlife.

Depending upon the scope of the project the BA should address federal candidate and species of concern, as well as state listed species, PHS resources, Tribal resources, and Forest Service Sensitive species. Although the ESA may not apply to these species, if significant impacts could occur, they should be discussed commensurate with the issues. This could also help avoid future listings. This section should be placed in the Appendix. The following items should be addressed:

SUF	INC	MIS	N/A		
				A.	Indicate the potential suitability of habitat in or near the project. Indicate the known or likely potential level of use of the site or project vicinity by the species.
				В.	These species can be addressed in guilds (species with similar life histories or habitat requirements), for example all bat species, amphibians, or aquatic species can be lumped together.
				C.	Describe any potential direct or indirect impacts on the species, (i.e., habitat loss, disturbance, etc.).
				D.	Species other than federally listed species, such as those mentioned above (State listed, Forest Service, Tribal, PHS, etc.) could be mentioned here as appropriate.
				E.	Impact assessment for these species should indicate whether the project is likely to significantly impact their populations or important habitat components.
Analys	sis of Im	pacts on	Candida	ates	and Species of Concern Comments:

Recommended Conservation Measures. Describe components of the project that may benefit or promote the recovery of listed species and are included as an integral part of the proposed project. These conservation measures serve to minimize or compensate for project effects on the species under review. Recommendations should be discussed with the project engineer to insure that they are feasible for the project. Typically NMFS and USFWS require inclusion of the recommendations in the project as part of the conditions of their concurrence. The following items should be addressed:

SUF	INC	MIS	N/A		
				A.	Provide specific recommendations, as appropriate, to reduce or eliminate the adverse effects of the proposed activity. Potential measures include: timing restrictions for all or some of the activities; clearing limitations; avoidance of specific areas; special construction techniques; HPA conditions; replanting with native vegetation; potential of habitat enhancement (i.e., fish passage barrier removal); best management practices, etc. If applicable, append a copy of the HPA, specs. for BMP's, or other documentation to support the implementation of the conservation measure.
				В.	These should be clearly stated so they can be easily incorporated into contract plans and implemented .
				C.	Include a description of any proposed monitoring of the species, its habitat and conservation measure effectiveness.
Recom	mended	Conserv	vation M	Ieası	ures Comments:

the report. The following items should be addressed: SUF INC MIS N/A A. A **determination of effect** must be made for each threatened and endangered species as well as any designated critical habitat*. For each, only one of the following determinations of effect is acceptable: Beneficial Effect (by definition cannot be a No Effect, must also be one of the May Affect calls); No Effect (absolutely NO effect whatsoever); May Affect, Not Likely to Adversely Affect (insignificant - never reaches level where take occurs, or discountable - extremely unlikely May Affect, Likely to Adversely Affect (measurable or significant effects) *In addition to the determination of effect made for designated critical habitat, you must also determine whether the action will destroy or adversely modify designated critical habitat. The format of the effect determination should include a list of all the factors that could affect the species followed by list of justifications for why it leads to the identified effect determination. B. For any proposed species or proposed critical habitat discussed, the conclusions should indicate whether the proposed project is likely to jeopardize the continued existence of the species (as in the entire species, not individual(s)), or destroy or adversely modify the proposed critical habitat. A conditional effect determination is also recommended in the event that the species is listed prior to project completion. C. For species discussed that are not afforded protection under ESA (i.e., candidates, species of concern, state listed species, etc.), the conclusions should indicate whether the project is likely to significantly impact populations, individuals or suitable (occupied or unoccupied) habitat. This analysis should be included with the rest of the candidate species section in the appendix. Conclusions and Effect Determinations Comments:

Conclusions and Effect Determinations. Summarize the proposed project and objectives, and restate the listed species that may occur near the project and the expected level of use. State what conclusions regarding potential impacts to the species discussed can be supported from the information presented in

Essential Fish Habitat (EFH). This section should be included in the appendix. EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH assessments must include a brief description of what EFH is, where it is located within the action area, a description of the project actions, an analysis of effects, including cumulative effects, of the proposed action on EFH, and an effects determination for the EFH of each species and/or species group for which habitat is present. When integrated with a biological assessment prepared for Section 7 consultation, elements of the project description, impact analysis, and conservation measures that are included in the ESA portion of the BA may be referenced in the EFH portion to avoid redundancy.

SUF	INC	MIS	N/A		
				A.	Provide a brief description of what EFH is, why it must be addressed, where it is found in the project action area, which species or species groups are within the action area it pertains to, and their use of habitat within the action area (significant prey species should also be considered). For the Pacific Coast salmon fishery, identify species (coho, Chinook, and/or pink). Otherwise, identify species group (groundfish and/or coastal pelagics).*
				*	Note that EFH pertains to both listed and non-listed species. For example, an EFH analysis may still be required when a project does not occur within the ESU of a listed species, but where Chinook, pink, or coho salmon or groundfish occur. Additional guidance for integrating ESA and EFH consultations may be found at: http://www.nwr.noaa.gov/1habcon/habweb/msa.htm
				В.	Include a brief statement of potential impacts (including beneficial effects) to EFH , including a description of individual or cumulative adverse effects of the project on relevant EFH, the managed species or species groups, and associated species such as major prey species, referring as necessary to supporting material in the ESA portion of the BA.
				C.	Include a description of conservation measures that will minimize or eliminate potential impacts to EFH and/or refer to appropriate conservation measures detailed in the ESA portion of the BA.
				D.	A determination of effect must be made for the EFH of each species and/or species group for which it is present. If the effect determination will be different for a species of Pacific salmon, the determination is made for each species in the species group (e.g., chinook, coho and/or pink salmon). Otherwise, the determination of effect is made for the species group (e.g., Pacific salmonids, groundfish and/or coastal pelagics). It should state either "no adverse effect" or "adverse effect" on EFH).
EFH A	dditiona	al Comm	ents:		

References and Appendices Refer to all appropriate project documents, particularly if the assessment depends upon information located elsewhere (e.g., in an EIS or EA). You should consider providing the Service with copies of pertinent documents along with the BA. Ideally, the BA will be a complete standalone document for ESA purposes. The following items should be addressed:

SUF	INC	MIS	N/A	A.	Provide citations for other information referred to in the BA, such as current literature and personal contacts used in the assessment. Include name, affiliation, and date. Use as the most recent references available on each species and topic.
				В.	Include as appropriate: any photographs; simple project plans; survey methods, protocols and results; and copies of the listing letters from NMFS and USFWS; Hydraulic Project Approval (WDFW); planting plans; Hydraulic Report; NMFS Baseline Checklist; Stormwater guidance, etc.
				C.	In the final document, do NOT include copies of PHS maps or site specific habitat resource maps, or tabular data if they contain details on sensitive information such as nest site locations or congregation areas. Information on some listed species should not be included in a public document. This information can accompany the document to aid the reviewer, but should not be incorporated into the document.
Refere	nces and	l Append	dices Co	omme	ents:
Additio	onal Cor	nments:			
					_

Revised: April 2005

Guidelines for the Fulfillment of Interagency Cooperation Under Section 7 of the Endangered Species Act

ENVIRONMENTAL ANALYSIS DIVISION
OFFICE OF ENVIRONMENTAL POLICY
FEDERAL HIGHWAY ADMINISTRATION

January 1988

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I. PURPOSE:

This guidance describes the Section 7 requirements of the Endangered Species Act and its relation to the Federal highway program. On June 3, 1986, the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) issued a joint rule (50 CFR, Part 402) establishing the procedural regulations governing interagency cooperation under Section 7 (Appendix 1). This regulation is for the purpose of ensuring that actions are not taken to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species. The June 3 regulation supersedes the previous final rule issued on January 4, 1978.

II. <u>BACKGROUND</u>:

A. Legislation

The endangered species program is mandated by the Endangered Species Act of 1973 (P.L. 93-205). The Act is composed of 16 sections (Sections 2 - 17). The following paragraphs summarize the major elements of each of these sections.

<u>Section 2 (Findings, Purposes, and Policy)</u> mandates all Federal departments and agencies to conserve endangered species and to utilize their authorities in furthering the purposes of the Endangered Species Act.

<u>Section 3 (Definitions)</u> provides a number of key definitions, such as critical habitat, endangered species, take, and others.

<u>Section 4 (Determination of Endangered Species and Threatened Species)</u> provides the criteria for determining endangered and threatened species. This section also provides guidance on the procedure for listing species and directs the development of recovery plans (see Appendix 2 for current procedures). As of March 31, 1987, 376 species are protected in the U.S. and territories. Hawaii, California, and Florida are accountable for the highest percentage of protected species. Generally, the marine species protected are under the jurisdiction of NMFS, and the remaining species are under FWS jurisdiction.

<u>Section 5 (Land Acquisition)</u> indicates which funding authorities can be used for acquisition.

<u>Section 6 (Cooperation with the States)</u> provides numerous options for the FWS in their relationship with the States, such as:

- 1. obtaining information;
- 2. assisting in the development of a State program for protecting species;
- 3. providing financial assistance; etc.

<u>Section 7 (Interagency Cooperation)</u> is the key section which requires each Federal agency to ensure that its actions do not jeopardize the continued existence of any threatened or endangered species or adversely modify the habitat of such species.

<u>Section 8 (International Cooperation)</u> encourages foreign countries to develop programs to conserve fish and wildlife, including the protection of threatened and endangered species.

<u>Section 9 (Prohibited Acts)</u> provides direction on importation of protected species, species held in captivity or a controlled environment, import and export rules, and designation of ports-of-entry.

<u>Section 10 (Exceptions)</u> provides exemptions to the law; such as the hardship criteria, rules governing Alaska natives, and the exemption of certain antique articles.

<u>Section 11 (Penalties and Enforcement)</u> provides the criteria for civil and criminal penalties, district court jurisdictions, rewards for information, enforcement of the Act, and provisions for citizen suits.

<u>Section 12 (Endangered Plants)</u> provides a report to Congress on species of plants which are now or may become threatened or endangered (report has been provided to Congress).

<u>Section 13 (Conforming Amendments)</u> amends certain laws to be in conformance with the Endangered Species Act.

<u>Section 14 (Repealer)</u> repeals portions of the Endangered Species Conservation Act of 1969.

<u>Section 15 (Authorization of Appropriations)</u> authorizes monies to implement the Act.

<u>Section 16 (Effective Date)</u> indicates the effective date of the Act to be December 28, 1973.

<u>Section 17 (Marine Mammal Protection Act of 1972)</u> emphasizes that unless otherwise indicated, no provisions are to take precedence over these more restrictive, conflicting provisions of the Marine Mammal Protection Act of 1972.

B. Amendments

The Endangered Species Act has been amended eight times, the latest being 1984. These amendments and their effects on the FHWA programs are listed as follows:

1. <u>P.L. 94-325 of June 30, 1976</u>

No effect.

2. <u>P.L. 94-359 of July 12, 1976</u>

No effect.

3. P.L. 95-212 of December 19, 1977

No effect.

4. P.L. 95-632 of November 10, 1978

- a. establishes an Endangered Species committee;
- b. formalizes the process for issuing a biological opinion;
- c. requires the preparation of a biological assessment, in appropriate instances; and
- d. prohibits a Federal agency from making irreversible or irretrievable commitments of resources after the initial consultation

5. P.L. 96-159 of December 28, 1979

- a. modifies Section 7(a)(2) so that actions are not likely to jeopardize the continued existence of any of the endangered or threatened species to destroy or adversely modify the critical habitat of such species;
- b. requires all Federal agencies to confer with the Secretary of the Interior; and
- c. requires Federal agencies to use the best available scientific and commercial data during formal consultation.

6. P.L. 96-246 of May 23, 1980

No effect.

7. P.L. 97-304 of October 13, 1982

- a. streamlines the listing process by reducing to 1 year the time period when final action on listing, delisting, and/or critical habitat proposals must be completed; and
- b. implements changes in the exemption process by eliminating review boards and substituting the Secretary of the Interior as the authority responsible for threshold determinations.

8. P.L. 98-327 of June 25, 1984

No effect.

III. <u>RESPONSIBILITY</u>:

A. Applicability

The Section 7 regulations are applicable to all actions that have discretionary Federal involvement or control. Each Federal agency must confer with the FWS on any action likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. For listed and proposed species

as well as designated and proposed critical habitat, a biological assessment is prepared to determine whether a formal consultation or a conference is necessary.

These procedures are required for major construction activities which are defined as a major Federal action significantly affecting the quality of the human environment, as referred to in the National Environmental Policy Act (NEPA).

For non-major Federal actions, the requirements of these regulations are in effect, however, the preparation of a biological assessment is not required. For each non-major Federal action, a determination of whether the action is likely to jeopardize the continued existence of a listed species or any critical habitat of a listed species should be made and documented. Thus, a letter to the FWS/NMFS requesting a species list or a letter to the FWS/NMFS indicating either "no listed species are in the project area" or presenting a list of species being reviewed initiates the coordination requirement.

B. FHWA Role

The FHWA shall perform the formal consultation procedures, but either the FHWA or the State highway agency (SHA) can perform the informal consultation process.

The Office of Environmental Policy maintains a complete accounting of proposed and listed species, including critical habitat information. This information may be obtained by calling (FTS 366-2068).

C. State Highway Agency Role

50 CFR, Part 402.08, allows a Federal agency to designate a non-Federal representative to conduct informal consultations or to prepare biological assessments. The FHWA has received written authorization from the FWS to allow SHAs to conduct informal consultations and to prepare biological assessments (Appendix 5). Written authority was not received from the NMFS, however, its agency representatives have indicated that the procedure agreed to by the FWS is satisfactory. However, the ultimate responsibility for compliance with Section 7 remains with FHWA.

D. The FWS/NMFS Role

The FWS and the NMFS are charged by Congress with the overall management of the Endangered Species Act and are jointly responsible for 50 CFR, Part 402—Interagency Cooperation. The NMFS is responsible for marine species, and the FWS is responsible for the remaining protected species. For species which spend a part of their life cycle in both fresh water and marine environment, an informal contact with either agency is recommended to obtain jurisdictional information. The appropriate field offices for the FWS and the NMFS are listed in Appendix 7.

IV. PROCESS

A. Overview

There are three basic procedures: (1) informal consultation; (2) early consultation, and (3) formal consultation. Informal and early consultations are designated as optional processes and may be converted to the formal consultation procedure. Formal consultation is required to satisfy the requirements of Section 7 except in the preparation of a biological assessment (Appendix 4) or as a result of an informal consultation, both of which require a written concurrence from the FWS. The written concurrence should indicate that the proposed action is not likely to adversely affect a listed species or critical habitat. A flow diagram is attached (Appendix 6) which charts the formal and informal consultation process. Early consultation is not charted but closely parallels the formal consultation.

B. Informal Consultation

1. The Procedure (Part 402.13)

The informal consultation process includes those steps necessary to determine whether or not formal consultation is required. In the vast majority of highway projects, Section 7 requirements will be met at the conclusion of informal consultation. If the SHA obtains written concurrence from either the FWS or the NMFS, agreeing that the action is not likely to adversely affect listed species or critical habitat, the FHWA is assured that the Section 7 requirements are complete. During this process, the FWS or the NMFS may suggest modifying the proposed action to avoid the likelihood of adverse effects to listed species or to critical habitat. The non-Federal representative (SHA) is encouraged to take the lead in this process if modification of the proposed action is necessary.

2. Relationship to Formal Consultation (Part 402.14(b))

As indicated in the previous section, the informal consultation procedure may complete the process, thus, the formal consultation process is not necessary. However, if the FWS or the NMFS indicates during the informal consultation process that the proposed action may affect a listed species or critical habitat, then formal consultation procedures must be followed unless the proposed project is modified so that "no effect" results. The FWS or the NMFS must then be informed of the change and concur. This completes the process, unless new species or new critical habitat is proposed before project completion. Then the informal consultation process may again be utilized.

3. Relationship to a Conference (Part 402.10)

A conference is a procedural step the Federal agency and the NMFS or the FWS take if a proposed species or proposed critical habitat are involved. The participation of the SHA is encouraged during the conference procedure. If any action is likely to jeopardize the continued existence of any proposed species or adversely modify proposed critical habitat, the FWS or the NMFS will,

subsequent to a conference, make advisory recommendations on ways to minimize or avoid adverse effects. If the species are listed or the critical habitat is designated prior to completing the project, the FHWA must review the action to determine whether formal consultation is required. The criteria used to decide whether to proceed to a formal consultation are:

- a. significant new information about the species or critical habitat; or
- b. significant changes to the FHWA proposed action.

The conclusions reached at a conference shall be provided to the FHWA by either the FWS or the NMFS. This process may complete the endangered species requirements, unless either criteria listed above develops.

C. Early Consultation

1. The Process (Part 402.11)

These procedures are intended primarily for private-sector applications for a Federal permit or license. The procedure is conducted between the FWS or the NMFS and the Federal agency responsible for issuing the permit or license. However, the prospective applicant should be involved throughout the consultation process. The procedures are essentially the same as the formal consultation but with minor changes in nomenclature.

2. Applicability

This process would not normally be used with Federal-aid procedures. The informal and/or formal consultation process would be most pertinent to the Federal-aid highway process.

D. Formal Consultation

1. The Process (Part 402.14)

The formal consultation procedure follows the informal consultation discussed previously. This procedure begins when a Federal agency or the FWS/NMFS determines that an action is likely to affect listed species or critical habitat. A written request by the Federal agency to the FWS or the NMFS shall include items in Section 402.14(c). If the FWS or the NMFS requests consultation, the Federal agency shall submit the information given in Section 402.14(c) to the FWS or the NMFS, as appropriate. The preparation of the formal consultation information by the Federal agency shall be completed within 90 days with an option to extend an additional 60 days. The FWS or the NMFS shall render the biological opinion within 45 days on its analysis of formal consultation items in Section 402.14(c). The FWS or the NMFS may ask for additional data to make a biological opinion. The biological opinion shall result in either a "no jeopardy" opinion or a "jeopardy" opinion is issued, the FHWA can

either drop the project or accept the reasonable and prudent measures necessary to convert the "jeopardy" opinion to a "no jeopardy" opinion.

2. Exceptions – (Part 402.14b)

The endangered species process is completed, prior to entering formal consultation, if:

- a. the biological assessment process or results of the informal consultation determines that the proposed action is not likely to adversely affect any listed species or critical habitat (A written notice of concurrence from the FWS or the NMFS must be received.); or
- b. a preliminary biological opinion, issued as a result of early consultation, is confirmed by the FWS or the NMFS as the final biological opinion.

3. Responsibility After Issuance of a Biological Opinion

If a "jeopardy" opinion is received by the FHWA, either the FWS or the NMFS, as appropriate, shall be notified, in writing, of our final decision. If the FHWA agrees with the FWS's or the NMFS's recommendations, the process is complete. However, if the FHWA considers the recommendations to be unreasonable, the exemption process is the only option available for advancing the project.

4. Exemption Process

The exemption process is found in 50 CFR, Part 450-453. The procedure for applying for an exemption is listed on sheets 4, 5, and 6 of the flow chart (Appendix 6). The FHWA has not utilized this procedure. There have been only two cases where an exemption was requested (Tellico Dam and Gray Rocks Dam)—neither were exempted.

5. Reinitiation of Formal Consultation

Even though the Section 7 requirements are fulfilled, reinitiation of the formal consultation procedure may be necessary under certain conditions. The reinitiation process may be applied until construction is completed. Either the FHWA or the FWS or the NMFS may reinitiate the formal consultation. The reinitiation of the formal consultation should be considered when:

- a. new information changes the effect of the project on listed species or critical habitat not previously considered; or
- b. the construction project is modified such that it causes an effect to the listed species or critical habitat that was not considered in the biological opinion, or

c. a new species is listed or a new critical habitat is established that may be affected by the construction project.

V. <u>SPECIAL CONCERNS</u>

A. <u>Candidate Species</u>

For the first time, the term "candidate species" is officially embodied within regulation. The term has caused confusion when it appeared in letters from the FWS and the NMFS by implying legal protection. Paragraph 402.(d) clearly specifies the status of candidate species.

"Candidate species" refers to any species being considered by the FWS or the NMFS for listing as endangered or threatened species but are not yet the subject of a proposed rule. Although candidate species have <u>no legal status</u> and <u>are accorded no protection</u> under the Act, these species are receiving consideration by experts for possible listing in the future.

B. <u>Biological Assessment (Part 402.12)</u>

A biological assessment is the process which determines the potential effect a construction project will have upon listed and proposed species and designated and proposed critical habitat. The assessment may be accomplished by the non-Federal representation, but in all cases, it remains a Federal responsibility under the oversight of the FHWA. The biological assessment procedure is for the purpose of determining whether formal consultation or a conference is necessary or whether the endangered species requirements are fulfilled. The key steps for the biological assessment procedures are included on sheet 2 of the flow chart (Appendix 6).

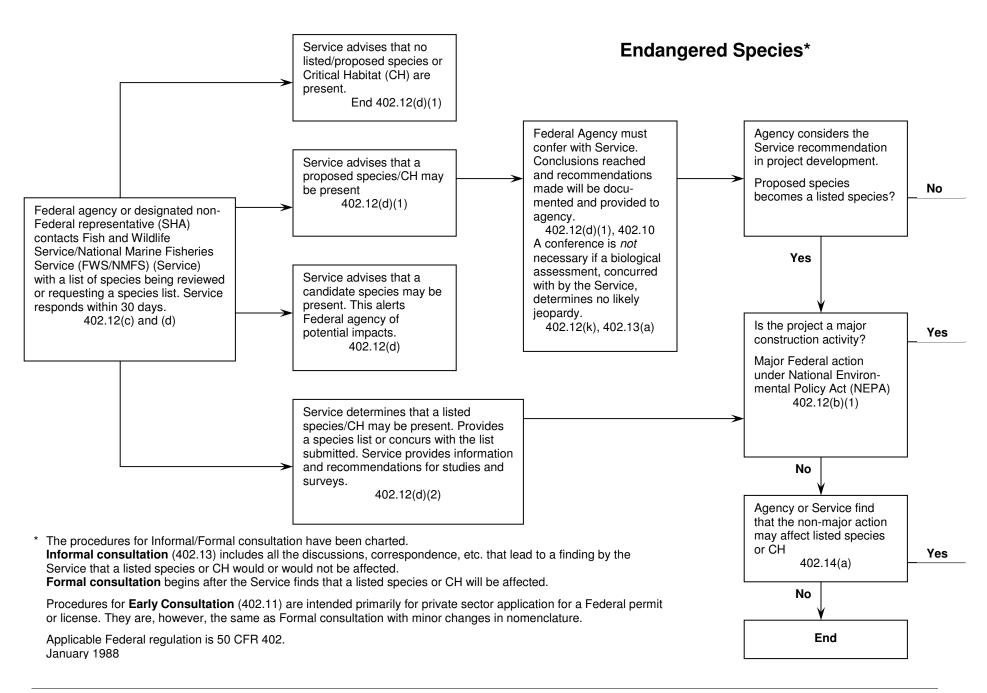
C. Permit Stage

All Federal agencies responsible for issuing permits are also required to meet the mandates of the Endangered Species Act. In most cases, the endangered species process completed by the applicant during the environmental stage will suffice. However, especially if several years have lapsed after completion of the process, the SHA should screen the protected list for new species or correspond with the appropriate office of either the FWS or the NMFS. It is anticipated that in most cases the consultation process, completed during the EIS stage, will suffice.

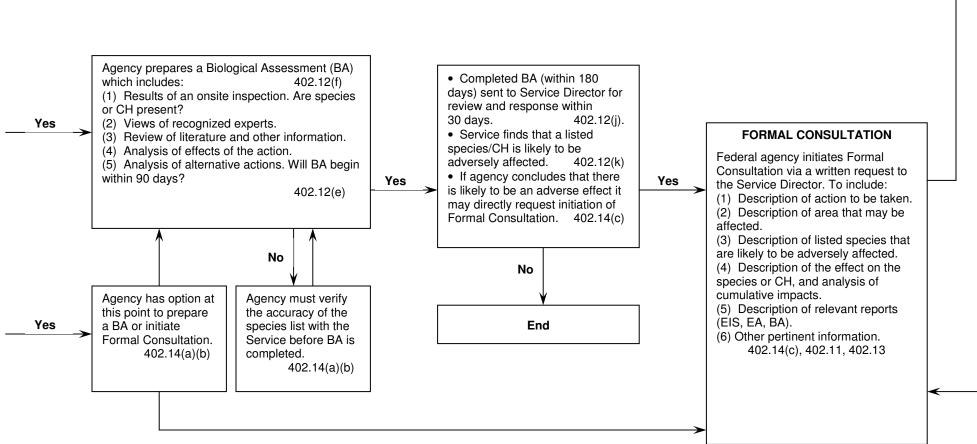
VI. CONCLUSION

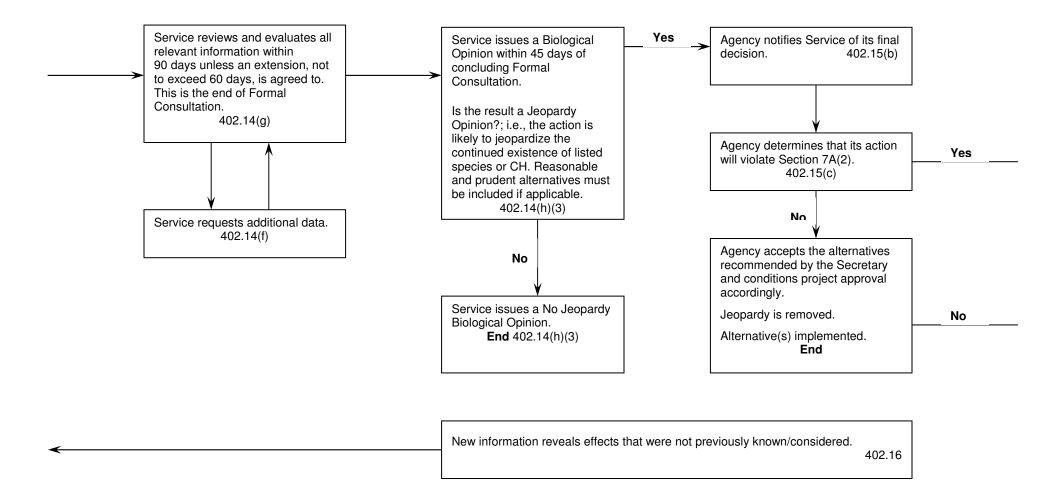
In general, the FHWA has not found the requirements of Section 7 of the Endangered Species Act to be onerous. The two areas of difficult encountered to date involved: (1) lack of sufficient scientific data by the FWS to support its recommendations; and (2) suggested alternatives (mitigation) that are not eligible for FHWA participation.

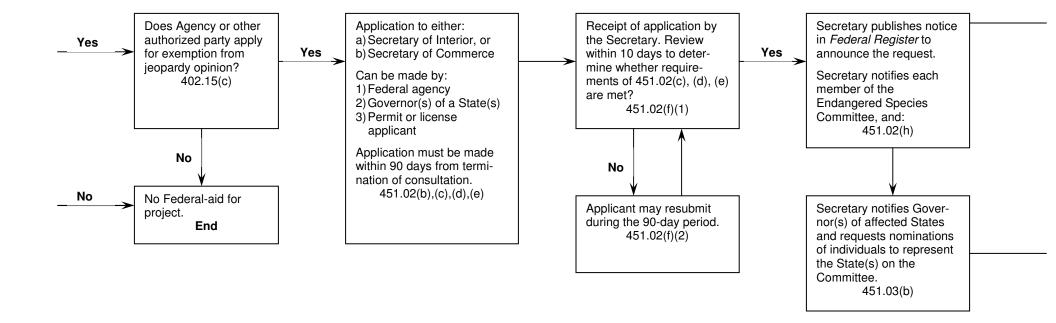
The guidance discussed in this paper is generally completed during the environmental process. Federal-aid is processed normally, as long as the requirements discussed previously are satisfied. Federal-aid will be delayed until requirements of the Endangered Species Act are met (see the flow chart in Appendix 6).

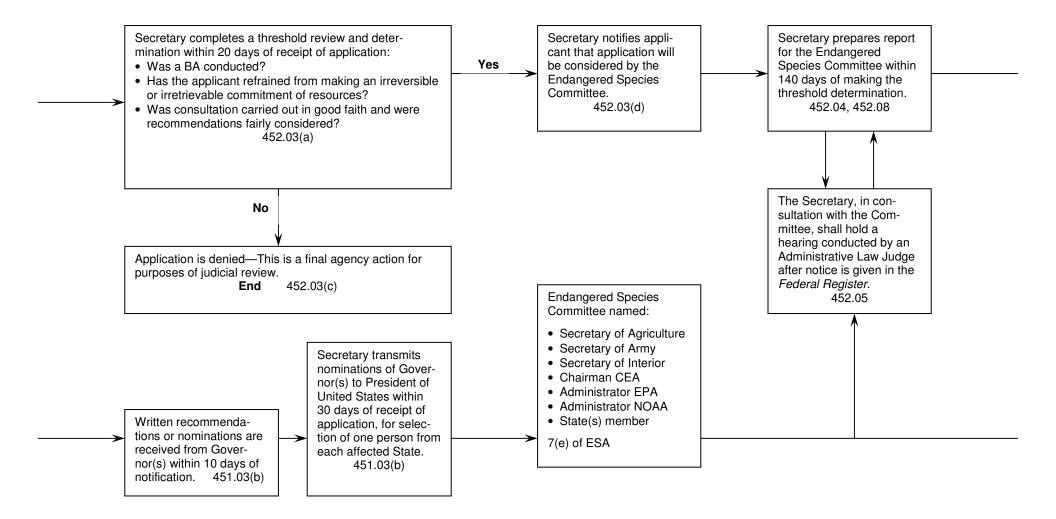


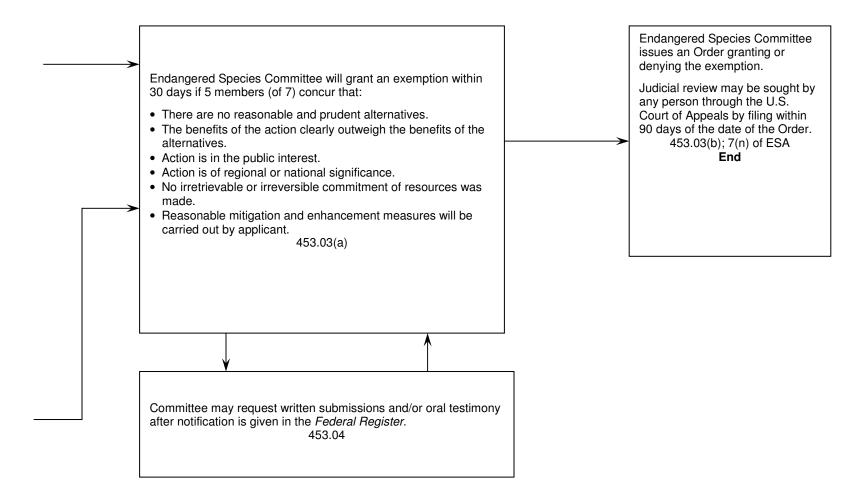












Guidance on Placement of Concrete Barriers

ENVIRONMENTAL SERVICES OFFICE

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

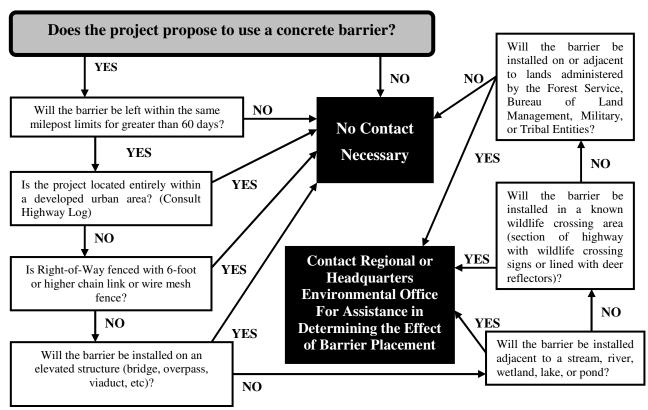
October 2002

PURPOSE

The purpose of this document is to facilitate collaboration between Design and Environmental staff in determining the effect of concrete barrier placement on wildlife and public safety. The placement of concrete barriers in locations where wildlife frequently cross the highway can influence traffic safety and wildlife mortality. When wildlife encounter physical barriers that are difficult for them to cross, they often travel parallel to those barriers. With traffic barriers, this means that they often remain on the highway for a longer period, increasing the risk of wildlife/vehicle collisions or vehicle/vehicle collisions as motorists attempt avoidance. Traffic-related wildlife mortality may play a role in the decline of some species listed under the Endangered Species Act.

To address public safety and wildlife concerns, the following decision matrix (**Figure 1**) will be used by the Design Office to determine if an evaluation by the Environmental Office is necessary regarding the placement of concrete barriers and the possible impacts to wildlife. This collaboration will occur early in the project development phase to ensure adequate time for discussion of options.

Figure 1. Decision Matrix (used by Design Office to determine the need for consultation with the Environmental Office).



DESIGN PROCESS

When WSDOT projects are designed to use concrete barriers, the potential for impacts to wildlife and the safety of the traveling public may occur. The questions in the decision matrix (**Figure 1**) are designed to establish a set of parameters where the placement of a barrier will most likely affect wildlife, and initiate contact with the Environmental Office. Each of these decisions and associated justifications are outlined in **Table 1**.

Table 1. Decision Matrix Questions and Justification.

MATRIX DECISION	JUSTIFICATION
Does the project propose to use a concrete barrier?	If the project does not propose the use of a barrier, continuing is not necessary.
Will the barrier be left within the same milepost limits for greater than 60 days?	If the project will temporarily use concrete barriers (<60 days), contact is not necessary due to the low potential for a wildlife encounter during construction activities.
Is the project located entirely within a developed urban area? (Consult Highway Log)	The WSDOT State Highway Log classifies each section of roadway in the State as Rural or Urban. In general, urban areas are not considered high-risk due to the low potential for wildlife occurrences.
Is Right-of-Way fenced with 6-foot or higher chain link or wire mesh fence?	Areas with this type of fencing are likely to preclude use of the roadway by wildlife that could be affected by a barrier.
Will the barrier be installed on an elevated structure (bridge, overpass, viaduct, etc)?	Wildlife crossing would be unlikely on elevated structures.
Will the barrier be installed adjacent to a stream, river, wetland, lake, or pond?	Riparian areas have high likelihood of use by wildlife.
Will the barrier be installed in a known wildlife crossing area (section of highway with wildlife crossing signs or lined with deer reflectors)?	These areas have already been identified as high-use areas by wildlife.
Will the barrier be installed on or adjacent to lands administered by the Forest Service, Bureau of Land Management, Military, or Tribal Entities?	Lands administered by these Agencies are likely to contain habitat conducive to use by wildlife. Also, other laws and regulations may apply which protect species on Federal lands.

ENVIRONMENTAL REVIEW

Regional and/or Headquarters biologists will be contacted by Design offices if a proposed project involves using a concrete barrier for longer than 60 days in the following areas: riparian habitats, including rivers, lakes, streams, ponds, and wetlands; known wildlife crossing areas, or; on or adjacent to lands under the jurisdiction of the Forest Service, Bureau of Land Management, Military, or Tribal Entities. Once contacted, the biologist should assess the project effects of barrier placement on wildlife. Biologists have several tools available to assess the impact of barrier placement.

• Topographic Maps

- -Check for natural wildlife crossings
- -Topography may limit wildlife crossing to a particular section of highway

• Aerial Photos

- -Establish stand structure and size of contiguous habitat
- -Wildlife will likely cross by using larger stands of existing cover

• WSDOT Deerkill Database

- -The Deerkill Database can provide mortality data for each State Highway
- -The database identifies problem crossing areas

• WDFW Priority Habitats and Species Database

- -PHS Database can identify wildlife use in an area
- -Known occurrences and wintering or breeding ranges can be determined

After review of the available resources, a site visit may need to be scheduled. If it is determined that placement of concrete barriers may affect wildlife or increase threats to public safety, the next step is to work with the Design Office to avoid or minimize impacts through design changes. There will not be a single solution to minimizing impacts. This is why it is critical to complete this process early in the project development stage, so adequate time is available to discuss options. These options may include, but are not limited to:

- Alter project design to include a break in the barrier at a determined location. The distance to these locations will vary depending on the species that are using the section of roadway and site-specific conditions. For example, amphibians or small mammals might require a gap every 50 feet, while large mammals may use a gap every 300 feet to exit the roadway. The gap in the barrier can be as simple as installing a section of guardrail, similar to those used at drainage inlets, or changing the type of barrier.
- Right-of-way exclusionary fencing would be an option to keep wildlife off the section of highway where barrier placement is necessary and no other alternative exists.
- A change in barrier type may allow wildlife to cross. For example, changing from a 42-inch single-slope barrier to a 32-inch jersey barrier may meet the design needs of the project while allowing wildlife to cross.

The use of this guidance will obviously not eliminate wildlife mortality on our State Highways. However, the collaboration between WSDOT Design and Environmental Staff when using concrete barriers will improve survival of species listed under the Endangered Species Act and ensure that the Agency meets its responsibility for sound stewardship of all species.

437 Wetlands

437.01	Introduction
437.02	Applicable Statutes and Regulations
437.03	Policy Guidance
437.04	Interagency Agreements
437.05	Technical Guidance
437.06	Permits and Approvals
437.07	Non-Road Project Requirements
437.08	Exhibits

Key to Icons



Web site.*



Interagency agreement.

437.01 Introduction

Wetlands provide important functions and values, including groundwater recharge, floodflow alteration, water quality improvements, erosion control and shoreline stabilization, as well as fish and wildlife food and habitat. This chapter includes information on wetland inventory, assessment, mitigation, and related procedures that should be followed when it is anticipated that a WSDOT project may have an impact on wetlands. It should be noted that wetland issues have the potential to trigger an analysis of aquatic and terrestrial wildlife and habitat in the vicinity of the wetland. The listing of salmonids under the Endangered Species Act (ESA) has heightened some aspects potential impacts to wetlands from WSDOT projects (see Chapter 436).

Impacts of transportation projects that may adversely affect wetlands include: sediment loads and deposition; toxic runoff; alteration of natural drainage patterns; water level increases or decreases; wetland filling or displacement; wetland draining due to channel straightening, deepening, or widening; and development in the wetland buffer areas that protect and shield the wetland from adverse impacts to water quality and habitat functions. When wetlands are adversely affected by a transportation project, WSDOT provides compensation for the impacts by restoring, enhancing, and/or creating wetlands. Project impacts that affect water quality are further addressed in **Chapter 431**.

The chapter focuses mainly on road projects. Policies, procedures, and permit requirements specific to ferries, airports, rail, and non-motorized transport are addressed in **Section 437.07**.

(1) Summary of Requirements

WSDOT policy is to avoid to the fullest extent practicable any activities that would adversely affect wetlands during the design, construction, and

^{*}Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

maintenance of the state transportation system. WSDOT supports federal and state "no net loss" policies by protecting, restoring, and enhancing natural wetlands that are unavoidably and adversely impacted by transportation-related construction, maintenance, and operations activities. WSDOT is committed to taking appropriate action to minimize impacts and to mitigate impacts that cannot be avoided, as required by federal, state, and local laws. In the event of unavoidable impacts, WSDOT policy is to consider the use of mitigation concepts. These include wetland mitigation banking and advanced mitigation such as wetland preservation where no overall net loss of functions will result. Applicable policies are referenced in Section 437.03.

Wetland analysis and impact mitigation are integral parts of the engineering and environmental process. Early review and analysis of project alternatives by regulatory and resource agencies, combined with effective inter-office coordination, are key elements in meeting project schedules and developing a successful wetland management program.

Environmental reports sometimes include information on additional aquatic resources (such as streams) together with wetland issues. In routine wetland practice, the four WSDOT wetland discipline reports (Wetland Inventory Report, Wetland/Biology Report, Conceptual Mitigation Plan, and Wetland or Environmental Mitigation Plan) provide the basis for responding to wetland issues. To facilitate the production of a wetland discipline report, technical documents that pertain directly to a given discipline report are included as reference documents for that particular report. The checklists and reference documents are described in Section 437.05.

Information on policy and technical documents, MOUs, Interagency Agreements, permits, certificates, and approvals included in this chapter provides background useful in preparing the WSDOT wetland discipline reports.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

401 Certification	Clean Water Act Section 401 Water Quality Certification
ATMS	WSDOT's Automated Training Management System
BPJ	Best Professional Judgment
CAO	Critical Areas Ordinance
Corps	U.S. Army Corps of Engineers
CTED	State of Washington Department of Community, Trade and
	Economic Development
CWA	Clean Water Act
CZM	Coastal Zone Management
DNR	Washington State Department of Natural Resources
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
GMA	Growth Management Act
HGM	Hydrogeomorphic Model
JARPA	Joint Aquatic Resources Permit Application

Landscape Architect

LA

NOAA National Oceanic and Atmospheric Administration

NRCS Natural Resources Conservation Service

NWP Nationwide Permit PE Project Engineer

PHS Priority Habitats and Species
PS&E Plans, Specifications, and Estimates
REC Regional Environmental Coordinator

SAC Signatory Agency Committee SAO Sensitive Areas Ordinance SMA Shoreline Management Act

USEPA U.S. Environmental Protection Agency

USFS U.S. Forest Service

USFWS U.S. Fish and Wildlife Service

WDFW Washington State Department of Fish and Wildlife

WSPI Wetland Strategic Plan Implementation

(3) Glossary

Many technical terms are associated with wetlands. A glossary of wetland terminology, including terms used in mitigation banking, is presented in **Exhibit 437-1**. See **Appendix B** for a general glossary of terms used in the EPM.

437.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to wetland issues. See **Appendix D** for an index of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 437.06**.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on wetlands are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Clean Water Act

The Water Pollution Control Act, better known as the Clean Water Act (CWA), 33 USC Section 1251 *et seq.*, provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources. The CWA authorizes the USEPA to administer or delegate wetland regulations covered under the act, which in Washington State is mainly to the U.S. Army Corps and Ecology. USEPA administers CWA implementation on tribal and federal land. Implementation requirements for CWA Sections 401, and 404 are described in Section 540.02 and Section 520.02. The law is online at:

http://www4.law.cornell.edu/uscode/

Scroll down and click on Title 33, then scroll down and click on Chapter 26.

Or by direct link:



http://www4.law.cornell.edu/uscode/33/ch26.html

Coastal Zone Management Act (c)

The Coastal Zone Management Act (CZMA) of 1972, 16 U.S.C. 1451 et seq., and its regulations, 15 CFR Parts 923-930, was enacted to encourage advancement of national coastal management objectives and assist states to develop and implement management programs. Washington's Coastal Zone Management (CZM) Program has been approved by the National Oceanic and Atmospheric Administration (NOAA) and is administered by Ecology. Under the program, cities and counties can develop local management plans that must be approved by Ecology. Ecology also provides general program overview and support. Implementation of the act is described in Section 540.03. For details, see Section 452.02. The law is online at:

http://www4.law.cornell.edu/uscode/

Scroll down and click on Title 16, then scroll down and click on Chapter 33.

Or by direct link:



http://www4.law.cornell.edu/uscode/16/ch33.html

Endangered Species Act (ESA) (d)

This act is administered by USFWS and NOAA Fisheries. Formal consultation under the act is triggered by a federal nexus including permits, funding or actions on federal land, and by the potential harm, harassment, or take of listed species or impacts to their habitat. Informal consultation under Section 10 of the act requires applicants to comply with the ESA even if a federal nexus does not occur. The ESA has relevance to wetlands section because of listed aquatic species. Please see **Section 436.02** for details. The law is online at:



http://www4.law.cornell.edu/uscode/

Scroll down and click on Title 16, then scroll down and click on Chapter 35.

Or by direct link:



http://www4.law.cornell.edu/uscode/16/ch35.html

Protection of Wetlands, Presidential Executive Order 11990 (e)

Presidential Executive Order 11990 (May 1977) requires federal agencies to minimize the loss or degradation of wetlands and enhance their natural value. WSDOT projects with federal funding are subject to this order. The document is available on FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs; then Planning, Environment, and Real Estate Services; then Environmental Guidebook and scroll down in paragraph 4 and click on Natural Environment; then Wetlands.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/v1ch14.htm Click on Wetlands.

(f) Preservation of the Nation's Wetlands, U.S. Department of Transportation Order DOT 5660.1A

This order (August 24, 1978) describes U.S. Department of Transportation (DOT) policy that transportation facilities and projects should be planned, constructed, and operated to assure the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable. The order established procedures for implementation of the policy. This document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on wetlands are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapter 410 and Chapter 411.

(b) Protection of Wetlands, Governor's Executive Order EO 89-10

This Governor's Executive Order (December 11, 1989) commits state agencies to the "no net loss" wetland policy, and to the encouragement of sensitive site design and planning on a watershed basis to avoid or minimize damage to wetlands. The order designates Ecology to provide guidance on wetland issues, and instructs each affected state agency to develop an action plan to lessen the loss of wetlands and to preserve or enhance the values of wetlands. This document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(c) Protection of Wetlands, Governor's Executive Order EO 90-04

This Executive Order (April 21, 1990) is more comprehensive than EO 89-10. Order 90-04 requires all state agencies to rigorously enforce their existing authorities to assure wetlands protection. State agencies are required to promote and support mitigation in the order of decreasing preference from avoidance to compensatory mitigation. This document

and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

Statutes and regulations identified in the Governor's EO include SEPA, Shoreline Management Act, Corps Section 404 permits, Ecology's water quality certifications, Ecology's water quality standards, WDFW's Hydraulic Code authority, the Puget Sound Water Quality Authority's implementation of the Puget Sound Plan, the Department of Agriculture's permit system for application of pesticides, the Forest Practices Board's forest practices rules, and grants and loans by the State of Washington Department of Community, Trade and Economic Development (CTED) and Community Economic Revitalization Board.

Ecology's requirements include developing state-wide policies and standards on a variety of wetland issues, and providing technical and educational assistance to state and local regulators.

(d) Clean Water Act State Implementation

Water quality regulations are mandated by the federal Clean Water Act (Water Pollution Control Act) described above. RCW 90.48 is the primary water pollution law for the state of Washington. WAC 173-201A mandates water quality standards for state surface water requirements. Ecology issues a 401 certificate of water quality compliance for each CWA Section 404 permit (see Section 437.06). Ecology also has the authority to issue administrative orders for projects not requiring 404 permits. The statute is online at:

http://slc.leg.wa.gov/

Click on RCW, then Title 90, then 90.48, Water Pollution Control; and go to WAC, then Title 173, then Chapter 173-201A, Water Quality Standards for Surface Waters.

Or by direct link for RCW 90.48:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapt er=90.48

Or by direct link for WAC 173-201A:

http://www.leg.wa.gov/wac/index.cfm?fuseaction=chapterdigest&chapter=173-201A

(e) Growth Management Act

In 1990, the Washington State Legislature adopted the Growth Management Act (GMA), codified as RCW 36.70A. This statute, combined with Article 11 of the Washington State Constitution, mandates that local jurisdictions adopt ordinances that classify, designate, and regulate land use in order to protect critical areas. Critical areas include, among others, wetlands and their buffers; these areas are regulated locally

through critical/sensitive areas ordinances. See Section 451.02 for more information on the GMA. The statute is online at:

http://slc.leg.wa.gov/

Click on RCW, then Title 36, then Chapter 36.70A, Growth Management.

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=36.70A

(f) Shoreline Management Act (SMA)

The goal of Washington's Shoreline Management Act (RCW 90.58) is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines. The act establishes a broad policy of shoreline protection, which includes wetlands.

The SMA uses a combination of policies, comprehensive planning, and zoning to create a special zoning code overlay for shorelines. Under the SMA, each city and county can adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic and environmental needs of the community. Master programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Please refer to Section 452.02 for more details about the SMA and local Shoreline Master Programs.



Click on RCW, then Title 90, then 90.58, Shoreline Management Act. The state guidelines for Shoreline Master Programs can be found at Chapter 173-26 WAC.

Or by direct link for RCW 90.58:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=90.58

Or by direct link for WAC 173-26:

http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapter=173-26

(g) Coastal Zone Management Act Certification (CZM)

Ecology includes a CZM consistency response with the CWA 401 certification for any work in the 15 coastal counties. For more detail, please see Section 437.06 and Section 540.03.

(h) Wetland Mitigation Banking

The 1997 Washington State Legislature passed a law (RCW 90.84) directing Ecology to adopt a rule for the certification of wetland mitigation banks. The statute requires that Ecology use a collaborative process to develop the rule. Ecology's approach to writing the rule is outlined in a

rule development plan. The rule will become WAC 173-700, Wetland Mitigation Banks.

Ecology has recruited an advisory team to help prepare rule language. The following web site posts the team's meeting agendas and summaries of all meetings. The web site also includes general information about wetland banking, RCW 90.84, Ecology's rule development program, opportunities for public involvement throughout the process, and links to related sites:

http://www.ecy.wa.gov/

Click on Programs, then Shorelands and Environmental Assistance, then Wetlands, then look under Wetlands Mitigation to find Mitigation Banking.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/wetmitig/index.html

437.03 Policy Guidance

- (1) Federal Policy Guidance
 - (a) U.S. Army Corps of Engineers Water and Wetland Protection Guidance

 The Corps regulatory program concerns not only the integrity of traditional navigable waters, but also the quality of waters of the United States, from wetlands to the territorial seas. For concise current information on Corps policies regarding wetlands, consult the Corps Seattle District web site:
 - http://www.nws.usace.army.mil/index.cfm

In left sidebar click on Regulatory/Permits. Also, and under Civil Works, click on Environmental Resources Section.

Or by direct link to regulations:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= REG&pagename=Home Page

Or to direct link to environmental resources:

- http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=ERS&pagename=ERS Home
- (b) U.S. Fish & Wildlife Service Mitigation Policy, Federal Register, Vol. 46, No. 15
 This document (January 23, 1981) can be located at the web site below; the preamble to the policy (not located on the web site) is available at the following web site under Wetland Guidelines:
 - http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

These two documents established policy for USFWS recommendations on mitigating the adverse impacts of land and water developments on fish, wildlife, and their habitats. The policy does not apply to threatened or endangered species or to the enhancement of fish and wildlife resources. The focus is on recommendations related to habitat value losses. USFWS

commits to promote and support mitigation in the order of decreasing preference from avoidance to compensatory mitigation.

The USFWS mitigation policy provisions complement NEPA requirements. In fact, the NEPA regulations require that USFWS recommendations be fully integrated into the NEPA process as vital information necessary to comply with NEPA. The policy is online at:

http://www.fws.gov/

Click on Search, type in Mitigation Policy, and select Mitigation Policy, U.S. Fish and Wildlife Service.

Or by direct link:

http://www.fws.gov/r9dhcbfa/hpmpol.htm

(c) U.S. Environmental Protection Agency Region 10 404 Mitigation Policy
This document (September 4, 1985) establishes USEPA Region 10 policy
on mitigating for adverse impacts on wetlands permitted under Section 404
of the CWA. USEPA commits to a no net loss wetland policy and to
cooperating with other resource agencies in developing site-specific
mitigation plans, including mitigation banking. USEPA also commits to
promote and support mitigation in the order of decreasing preference from
avoidance to compensatory mitigation. This document and WSDOT
information on wetland assessment, mitigation and monitoring are
available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(d) Federal Guidance for Mitigation Banking

This document provides policy guidance for the establishment, use and operation of mitigation banks for the purpose of providing compensatory mitigation for authorized adverse impacts to wetlands and other aquatic resources. This guidance is provided expressly to assist federal personnel, bank sponsors, and others meeting the requirements of Section 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act, and other applicable federal statutes and regulations. The policies and procedures discussed herein are intended only to clarify the applicability of existing requirements to mitigation banking.

The policies and procedures discussed are applicable to the establishment, use and operation of public mitigation banks and privately-sponsored mitigation banks, including third party banks (e.g., entrepreneurial banks). The guidance is available online at USEPA's web site:

http://www.epa.gov/owow/wetlands/

Click on Laws, Regulations, Guidance, and Scientific Documents; then Guidance; then find 1995 Mitigation Banking Guidance (under Mitigation/Mitigation Banking).

Or by direct link:

http://www.epa.gov/owow/wetlands/guidance/mitbankn.html

(2) State Policy Guidance

(a) Washington Transportation Commission

The Transportation Commission's Policy Catalog contains a specific policy on wetlands conservation. Policy 6.3.4 acknowledges that population growth, urban runoff, erosion, and current construction practices all contribute to the destruction and degradation of wetlands in the state. The Commission's goal is to "support federal and state 'no net loss' policies by protecting, restoring, and enhancing natural wetlands adversely impacted by transportation-related construction, maintenance, and operations activities."

(b) Protection of Wetlands Action Plan, Washington State Department of Transportation Directive D31-12

This WSDOT directive (August 1, 1990) is in response to and support of EO 89-10 and EO 90-04, which require that each state agency develop an action plan for the protection of wetlands. This document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

WSDOT policy is to avoid, to the fullest extent practicable, any activities that would adversely affect wetlands in designing, constructing, and maintaining the state transportation system. Where it is not possible to avoid wetlands, WSDOT will take appropriate action to minimize wetland impacts and to adequately mitigate impacts that cannot be avoided.

Appendix 1 of the Directive describes WSDOT's Action Plan for the Protection of Wetlands. The Action Plan includes actions for impact identification, wetland inventory, project prospectus, agency SEPA policy, wetland mitigation banks, wetland management agreements, wetland research, wetland buffers, and wetland education programs. The plan includes the following components:

- Design including project design alternative analysis, wetland/biology analyses and reports, environmental documents, project design documents, wetland mitigation plan, and permit applications.
- Land management including wetland preservation on WSDOTowned properties, and wetland preservation maps.
- Construction including mitigation implementation, disposal sites, drainage facility construction, and pile driving.
- Maintenance including mitigation implementation, disposal of waste materials, and roadside management planning for the protection of wetlands.

437.04 Interagency Agreements

(1) Wetland Protection and Management Implementing Agreement

The purpose of this agreement between WSDOT and Ecology is to clarify and promote interagency coordination in wetland protection and management. The agreement also institutes a wetland training program to benefit staff from both agencies and establishes a process for conflict resolution.

Coordination between WSDOT and Ecology is strongly encouraged. Permit coordination staff from other agencies are invited to meetings on a case-by-case basis.

Under the agreement, the two agencies determine policies of mitigation, preservation, mitigation banking, and training programs. The following appendices provide guidelines and other information to assist interagency coordination:

Appendix A. List of WSDOT and Ecology Wetlands-Related Staff.

Appendix B. Documents of the Project Development Process.

Appendix C. WSDOT Guidelines for Wetland Reports.

Appendix D. WSDOT Guidelines for Wetland Mitigation Plans.

Appendix E. Guideline for Compensation Mitigation Ratios.

Appendix F. List of Invasive/Exotic Plant Species.

Appendix G. Definitions of Wetland Terms.

This agreement is online at:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

Implementing Agreement between the Washington State Department of Transportation and the Washington State Department of Ecology Concerning Wetlands Protection & Management. July 1, 1993.

(2) Wetland Mitigation Banking Memorandum of Agreement

The purpose of this Memorandum of Agreement is to establish the principles and procedures that signatories will adhere to when establishing, implementing, and maintaining the WSDOT Wetland Compensation Bank Program. Signatories are the Corps, USEPA, USFWS, NOAA Fisheries, FHWA, Ecology, WDFW, and WSDOT.

The MOA and its appendices include goals of the MOA and the Wetland Compensation Bank Program; definitions; oversight committee issues; methods for establishing and maintaining wetland bank sites; criteria for the use of wetland banks; use and calculation of banking currency, credits, and debits; requirements for inspections and monitoring of bank sites; methods of maintaining the MOA; and references.

Criteria for bank use are likely to change from those presented in this MOA. An Ecology rulemaking process on wetland banking is underway and WSDOT is participating in the process. After adoption, the Ecology rule will take

precedence over the MOA. When the WSDOT wetland mitigation banking policies are developed they will be provided in this manual.

The MOA can be viewed at:



http://www.wsdot.wa.gov/environment/

Click on Wetland Information, then Alternative Mitigation, then scroll down to WSDOT Memorandum of Agreement.

Or by direct link:

http://www.wsdot.wa.gov/environment/biology/docs/WetlandMOAFinal1994.pdf

Washington State Department of Transportation Wetland Compensation Bank Program: Memorandum of Agreement. September 15, 1994.

Signatory Agency Committee Agreement to (3) Integrate Aquatic Permit Requirements into NEPA/SEPA Process

The Signatory Agency Committee (SAC) Agreement applies to all WSDOT projects requiring a Corps of Engineers (Corps) Individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS. Signatories are FHWA, NOAA Fisheries, Corps, USEPA, USFWS, Ecology, WDFW, and WSDOT. These agencies aim to integrate conditions of aquatic related permits and approvals, with the NEPA/SEPA processes at the planning, programming and project development stages. The SAC process involves requests for resource agency "concurrence" at critical point in the NEPA process.

The following appendices of the SAC agreement apply specifically to wetlands:

Appendix D. Alternatives Analysis and Aquatic Resource Avoidance Guidance for Transportation Projects.

Appendix E. Compensatory Mitigation.

Appendix F. Level of Data Needs/Threshold for Involvement.

Appendix L. Monitoring and Evaluation.

For details, see **Section 411.06**.

(4) Alternative Mitigation Policy Guidance Interagency Implementation Agreement

The purpose of this February 2000 interagency agreement between Ecology and WDFW and WSDOT is to describe consensus on mitigation policy among the agencies responsible for aquatic resource mitigation, which includes wetland mitigation. Several agencies participated in the development of this policy, including WSDOT, tribal governments, and CTED. Use of the guidance by local governments facilitates a consistent approach to aquatic permitting in the same watershed.

When habitat impacts occur and reconstruction of the same type of habitat is not possible at or near the project site, this policy provides guidance for evaluating alternative types of mitigation that may occur within a watershed.

The agreement recognizes the need to consider the watershed ecosystem as a whole when evaluating impacts. Policy guidance includes agreement on

mitigation requirements, the importance of avoidance measures, minimization of impacts, compensatory mitigation for unavoidable impacts, and other requirements of aquatic resource functions mitigation such as best available science, mitigation plans, and monitoring.

The most detailed part of the policy deals with compensatory mitigation, including policies on preservation and wetland mitigation banking. The agreement is online at:

http://www.wsdot.wa.gov/environment/

Click on Wetlands, then Wetland Related Publications, Then Alternative Mitigation Policy.

Or by direct link:

http://www.wsdot.wa.gov/environment/biology/docs/ AlternativeMitigationPolicy2000.pdf

Alternative Mitigation Policy Guidance Interagency Implementing Agreement: State of Washington Alternative Mitigation Policy Guidance for Aquatic Permitting Requirements from the Departments of Ecology and Fish and Wildlife. February 10, 2000.

(5) Other Interagency Agreements

For other agreements related to wetlands, please see Section 431.04 (water resources) and Section 436.04 (fish and wildlife). See Appendix E for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-making Process.

437.05 Technical Guidance

(1) General Guidance

Wetland issues are incorporated into WSDOT's engineering design process. A flow chart showing the typical process and responsibilities for analyzing wetland impacts, evaluating design alternatives, and developing wetland mitigation designs is available. This document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(a) Required Reports

Wetland reports are required by regulatory agencies for projects in which wetlands may be adversely affected during project construction. These reports are usually required before permits are issued. A typical report submitted for a permit application includes a wetland assessment, an impact assessment, a mitigation proposal, a monitoring plan to determine the success of mitigation, success standards, and contingency plans in case of failure.

In general, WSDOT uses four sequential discipline report checklists as guides to the technical information required in drafting wetland reports.

WSDOT policy is to prepare a Wetland Inventory Discipline Report and/or a Wetland/Biology Discipline Report for each project that will potentially impact wetlands. A Wetland Inventory Report is used for inhouse planning; a Wetland/Biology Report is required for permits. The two mitigation discipline reports (Conceptual Mitigation Plan and Wetland Mitigation Plan) are developed when unavoidable adverse impacts are identified. A conceptual mitigation plan is often included in the Wetland/Biology Report.

Key elements in the flow chart, as well as essential coordination that should take place, are elaborated below in descriptions of the four wetland discipline reports. FHWA and other technical guidance information are also cited.

Wetland discipline report templates are currently available on the WSDOT network server. In the future, the templates will be available online at:

http://www.wsdot.wa.gov/environment/

Click on Biology, then Wetlands, then look for the report template under Related Information or under Wetland Publications.

(b) WSDOT GIS Workbench

WSDOT's GIS Workbench, a GIS interface for internal WSDOT use, can be accessed to obtain some of the data necessary to write the wetland reports, including Natural Wetlands Inventory coverage. Local jurisdictions can be contacted to find out whether additional local wetland mapping is available, on GIS or hard copy. When required, WSDOT's GIS staff can process requests for this information. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(c) WSDOT Standard Symbols and Conventions

WSDOT Standard Symbols and Conventions for Wetlands and Stormwater Treatment Areas are listed in the *Plans Preparation Manual* (M 22-31). Current standards are located on WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Site Index, then Site Index, then E, then Engineering Publications, then On-Line Technical Manual Library, then search for Plans Preparation Manual.

Or download by direct link:

http://www.wsdot.wa.gov/fasc/EngineeringPublications/manuals/ Plnsprep.pdf

Click on Division 5, Contract Plan Standard Symbols, Conventions, and Details; then to Symbols and Conventions, and find page 5-46, Level 31: Wetlands and Stormwater Treatment Areas.

WSDOT mapping conventions for biological reports and plan sheets are under development.

(d) WSDOT Wetland Training

The course titled Wetlands: Recognition, Regulation, and Resource Value (Course Code: BKS) is available for WSDOT employees as part of WSDOT's Automated Training Management System (ATMS).

This course is designed to give class participants an understanding of the value of wetlands as a resource; their regulation by local, state, and federal agencies; and methods of wetland identification. Mitigation and wetland policy is discussed, as well as how these environmental issues affect the WSDOT processes for project development.

- Upon completion of the course, participants will be able to:
- Describe the types of wetlands and their significance and values in the environment
- Recognize the steps of the concept of mitigation sequencing and be able to identify mitigation practices
- Determine essential permits and regulations
- Describe the WSDOT wetland policy

WSDOT Technical Guidance Web Site (e)

Several useful links and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:



http://www.wsdot.wa.gov/environment/biology/bio wetlands.htm

Wetland Inventory Discipline Report (2)

Avoiding wetlands or minimizing impacts to wetlands must be considered in all WSDOT projects. The Wetland Inventory Discipline Report checklist is used to identify wetland resources early enough that changes to project alternatives can be considered. The Wetland Inventory Report is prepared by a WSDOT wetland biologist or qualified consultant. It is submitted to the WSDOT Regional Environmental Coordinator and a copy is sent to the WSDOT Project Engineer. The report is used as part of the data for initial development of project design alternatives. Please consult the WSDOT regional environmental office to determine whether this discipline report is required.

As illustrated in the WSDOT flowchart the Wetland Inventory report is integrated with the initial transportation engineering project planning process and is used to develop transportation project alternatives.

These documents and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio wetlands.htm

The Wetland Inventory Discipline Report includes:

Introduction – This part requires information on the location and physical condition of the site and its vicinity, field review, and maps.

Affected Environment – A description (which does not have to include a formal wetland delineation) is required for each wetland identified in the introduction. The description should include connection to other aquatic systems, and data from WDFW's Priority Habitats and Species (PHS) and Natural Heritage Program.

Wetland Map - The location of all identified wetlands, streams, and other surface waters must be clearly shown on a map.

Summary – The summary should include enough detail so it can be used with only minor changes in an EIS or in project designs. It should present recommendations for preliminary impact avoidance and minimization.

(3) Wetland/Biology Discipline Report

This report is prepared after specific project designs and alternatives have been developed. Although this report includes some of the information from the Wetland Inventory Discipline Report, it provides a more detailed analysis than the previous report, and includes more specific information regarding plant and animal communities. This report accurately describes wetlands and other important resources and impacts to those resources for each alternative under consideration. Preparation of this report requires formal delineation of the wetland boundaries, followed by surveying. It identifies wetlands and other key biological resources, and evaluates the ecological significance of each project's potential impacts. This report serves as the starting point for the development of wetland categorization, wetland mitigation planning, and permit applications. Please consult the WSDOT regional environmental office to determine whether this discipline report is required.

A checklist used to guide preparation of the report, and WSDOT information on wetland assessment, mitigation and monitoring can be found at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio wetlands.htm

Contents (a)

A standard wetland report template and other information relating to wetland assessment, mitigation and monitoring is available to WSDOT staff at the following web site under Wetland Guidance:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(b) Reference – Wetland Functions Characterization Tool for Linear Projects (WSDOT)

This tool uses Best Professional Judgment (BPJ) to assess wetland functions consistently and rapidly. The document consists of a guidance section, references, and appendices containing a glossary, a key to wetland classification, and a set of blank forms.

This wetland assessment tool is not intended to substitute for or replace Ecology's *Methods for Assessing Wetland Functions* tool (listed in Section 437.05(7)). The WSDOT tool does not attempt to quantify wetland function, nor does it provide for comprehensive study of an entire wetland system. The Ecology function assessment model requires that quantitative data be gathered from each wetland in its entirety, which is unfeasible for WSDOT linear project evaluations due to right of way and site entry constraints, staff time requirements, and data collection requirements disproportional to the size of the impacts.

The WSDOT tool allows evaluation of hydrological functions such as water quantity and quality, biological functions such as wildlife habitat suitability and fish habitat, and general wetland attributes such as wetland classes and wetland quality. This tool is available on the WSDOT web site:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(4) Conceptual Mitigation Discipline Report

The Conceptual Mitigation Discipline Report Checklist is used to produce the Conceptual Wetland Mitigation Plan, which is a rough guide to early mitigation site selection in projects with anticipated wetland impacts. This document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

The checklist should help provide enough information for WSDOT and resource agency personnel to agree upon or reject a mitigation proposal before a detailed analysis is done. Depending on the particular project and its potential impacts, the conceptual mitigation report is used either as an internal WSDOT document, or to coordinate with other agencies at an early stage of project development. Several reference documents to assist in preparing the Conceptual Mitigation Discipline Report are cited below. Please consult the WSDOT regional environmental office to determine whether this discipline report is required.

(a) Contents

Projects with anticipated wetland impacts require a Conceptual Mitigation report to assist in evaluating location and design alternatives. Based on the Wetland/Biology and the Conceptual Mitigation reports, regulatory and resource agency comments on the preferred alternative and anticipated unavoidable wetland impacts should be obtained in writing at this stage of the project. The WSDOT Regional Environmental Manager is responsible for completing this analysis and for obtaining regulatory agency comment. (Permits and approvals that may be required are listed in Section 437.06.)

The Conceptual Mitigation Discipline Report includes:

Introduction – Background information on the site is presented, a general mitigation strategy is proposed, and potential problems that need to be resolved are revealed.

Wetland Impacts – This includes a summary table showing wetland characteristics and the acreage impacted.

Proposed Mitigation – This includes required mitigation ratios, site description, and general mitigation strategy such as creation, enhancement, or preservation.

Action Items – Problems and data needs are identified.

Figures – Large-scale vicinity maps, mitigation site maps, and sketches of proposed mitigation plans are included.

Additional information is available on the following web site under Wetland Guidance:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(b) References and Guidance on Mitigation Banking

Wetland mitigation banks are an important tool in providing compensatory mitigation for unavoidable impacts to wetlands. Federal, state, and local governments may authorize the establishment and use of public and private wetland mitigation banks. Terminology specific to wetland banking is included in **Exhibit 437-1**, and is also located online at:

http://www.wsdot.wa.gov/environment/

Click on Wetland Information, then Alternative Mitigation/Wetland Banking.

Or by direct link:

http://www.wsdot.wa.gov/environment/biology/bio_mitbank.htm

The Department of Ecology has developed a draft rule on wetland mitigation banking, and information can be viewed at:

http://www.ecy.wa.gov/

Click on Programs, then Shorelands and Environmental assistance, then Wetlands, then Wetlands Mitigation.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/wetmitig/index.html

WSDOT participates in the Ecology-led Wetland Mitigation Banking Advisory Team. The advisory team is in the process of developing a rule for the certification, operation, and monitoring of wetland mitigation banks. The rule will include the following elements:

 Giving priority to banks providing for the restoration of degraded or former wetlands.

- Certifying banks involving the creation and enhancement of wetlands only when there are adequate assurances of success and that the bank will result in an overall environmental benefit.
- Possibly certifying preservation-only banks.
- Requiring mitigation sequencing, with avoidance and minimization of impacts, for projects proposing to use wetland bank credits.

(c) Reference on Wetland Preservation

Most federal, state, and local agencies allow the use of wetland preservation as a compensatory mitigation measure under specific conditions. The use of preservation as the sole compensation is discouraged; preservation should only be used when all other compensatory measures have been considered and stand-alone preservation is the best alternative. Concurrence from the permitting agencies is necessary.

WSDOT guidance on the use of wetland preservation as a mitigation tool is available in *Mitigation Tools for Special Circumstances: Preservation of High Quality Wetlands* (June 1999). The WSDOT guidance document includes proposed mitigation ratios when preservation is used. Criteria for selecting preservation sites include Ecology's four-tier wetland rating system. This document is available on the WSDOT web site:

http://www.wsdot.wa.gov/environment/

Click on Wetland Information, then Wetland Related Publications, then Preservation as a Mitigation Tool.

Or by direct link:

http://www.wsdot.wa.gov/environment/biology/docs/ Wetland Preservation.pdf

(5) Wetland Mitigation Plan Discipline Report (Draft and Final)

(a) Draft Wetland Mitigation Plan

After the site(s) for wetland mitigation have been identified for each alternative under detailed consideration, the WSDOT landscape architect and wetland biologist, in consultation with the Regional Environmental Coordinator and project engineer, prepare the Draft Wetland Mitigation Plan Discipline Report. The report is prepared after a preferred mitigation site has been selected but before detailed data collection or planning have taken place. Although some variation occurs between regions, the general mitigation report process is outlined in this manual. Please consult the WSDOT regional environmental office to determine whether this discipline report is required.

The Draft Wetland Mitigation Plan Report is normally submitted with wetland-related permit applications. The WSDOT checklist is a guide to preparing the draft plan. The Draft Wetland Mitigation Plan Report provides detailed information about the project, design measures taken to avoid or minimize wetland impacts, and the measures proposed to

compensate for unavoidable impacts. The draft document includes enough detail for agencies to understand WSDOT's mitigation plans and to make suggestions regarding permits. This prevents investing too much in the design of a mitigation plan that may not meet regulatory or legal needs. This document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

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The Draft Wetland Mitigation Plan is reviewed by regional or Olympia Service Center design, landscape architect, horticultural, maintenance, and real estate service/right of way offices before detailed discussion occurs with regulatory and resource agency personnel. A maintenance estimate should accompany the draft document. WSDOT Region Environmental Manager is responsible for coordinating the appropriate review within the region.

A Wetland Mitigation Plan Discipline Report includes:

- *Introduction* Overview of the Mitigation Plan.
- Document Sections Project description, detail of design decisions made to avoid or minimize wetland impacts, and a detailed description of the affected wetlands and their functions.
- *Proposed Compensatory Mitigation* Mitigation ratios required and actual acreage created, enhanced, or preserved.
- **Description of Mitigation Site** Detailed site description and the rationale for choosing the site.
- *Mitigation Strategy* Description of the mitigation strategy; must include objectives, performance measures, and standards of success.
- *Construction and Planting Schedules* Monitoring plan, contingency plans, and maintenance provisions.
- References Wetland rating systems, maps, and types of wetland classification used in the mitigation plan. (Many of these references also appear in the Wetland/Biology Report, which is attached as an appendix.)
- Figures Vicinity and site maps, a grading plan, and a planting plan. Grading and planting plans may be in rough form in the draft report.
- *Appendices* Plant scientific names, wetland data sheets such as wetland delineation forms, and the Wetland/Biology Report.

After WSDOT reviews and comments, regulatory and resource agency staff review the project proposal and the Draft Mitigation Plan. Copies of the Draft Mitigation Plan should be supplied to all agencies and parties concerned. For projects requiring an EIS, information from the Draft Mitigation Plan is incorporated into the DEIS for agency and public review. Regulatory agencies should provide written conditional approval

of the Draft Mitigation Plan before work proceeds any further. Coordination and effective communication at this stage speed up the permit review process. An on-site review of the project and discussion of proposed wetland mitigation is also advisable in most cases.

At the same time that the Draft Mitigation Plan is supplied to regulatory and resource agencies, the Regional Environmental Coordinator initiates permit applications. While complete information on impacts and mitigation is not available until after review of environmental documents, initial information supplied at this time will assist in starting the permit process. The September 17, 2002, Signatory Agency Committee Agreement with the Corps and the July 1, 1993, Implementing Agreement with Ecology promote and support this "phased" approach to permit processing. These agreements are online at:

http://wsdot.wa.gov/environment/compliance/agreements.htm

WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

Permits required by local jurisdictions should also be applied for at this stage. Permits and approvals that may be required are listed in **Section 437.06**.

(b) Reference on Success Standards

The development of complete, well-articulated performance criteria is a key component of each wetland mitigation plan. A performance criterion is a clear description of a measurable standard, desired state, threshold value, amount of change, or trend used to achieve for a particular population or habitat characteristic. It may also set a limit on the extent of an undesirable change.

In order to ensure that mitigation site success criteria are measurable, Environmental Services Office Wetland Assessment and Monitoring Program staff must review all proposed mitigation plans prior to submittal with the permitting agencies.

For more information, visit the following web site under Wetland Guidance:

http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(c) Description and Reference on Mitigation Monitoring

Wetlands are dynamic systems where plant communities can evolve rapidly as conditions change. When activities such as excavation, grading, or hydrology modification occur, the wetland response is difficult to predict. Consequently, wetland creation, restoration, rehabilitation, and enhancement projects are challenging to monitor.

Static monitoring plans do not adequately address the possibility of dynamic change in the plant communities they are intended to measure. As a result, the WSDOT Monitoring Program uses a flexible monitoring strategy that adjusts to

temporal changes observed in wetland plant communities. Information from monitoring is incorporated into an adaptive management plan intended to guide site management activities.

Adaptive management is a process with two key components (Elzinga et al., 1998). One component is that monitoring is appropriate only if opportunities for change in management activities exist. The second component is that monitoring is driven by objectives. The performance objective describes the desired condition, and management activities are planned to help the site meet that performance objective. Monitoring activities are designed to determine if the objective has been achieved. Valid monitoring data is critical to making meaningful management decisions that help the site meet its objectives.

Monitoring plans and strategies for measuring success standards are based on site conditions and plant community development. These factors are considered with performance objectives and success standards to develop site-specific monitoring plans at the beginning of each field season. Appropriate monitoring activities are used to ensure valid data is used to guide site management decisions.

For more information, see Elzinga, C. L., D. W. Salzer, and J. W. Willoughby, Measuring and Monitoring Plant Populations, Bureau of Land Management Technical Reference 1730-1, BLM/RS/ST-98/005+1730, 1998.

Monitoring protocols are available online under Wetland Guidance at



http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

(d) Final Wetland Mitigation Plan

The Final Wetland Mitigation Plan is the document of record for compliance with the permit conditions. Work on the Final Wetland Mitigation Plan should not begin until the appropriate review agencies have provided written conditional approval of the Draft Mitigation Plan. This approval is contingent on the following conditions:

- The Final Wetland Mitigation Plan will not be substantially different from the Draft Plan.
- The Final Wetland Mitigation Plan will adequately demonstrate the likely success of the mitigation project.

The Final Wetland Mitigation Plan is completed only for the selected preferred alternative. In addition to including all elements of the Draft Mitigation Plan, the Final Plan must include a general grading plan and a revegetation plan. The WSDOT checklist is a guide to preparing the final plan. This document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:



http://www.wsdot.wa.gov/environment/biology/bio_wetlands.htm

The following features must be included in both the draft and final plans:

A contour map of the mitigation project. Provide sufficient information so water depths, open water areas, boundary areas, and other features can be visualized. Seasonal ground water and the sources of hydrology for the site should be evident.

- A list of native plants to be used and general planting plan to illustrate the planting concept for the site. Reviewers need to know what species will be planted, in what proportions, and their general locations.
- Construction sequence and schedule.
- Steps to be used to minimize damage to surrounding buffers or wetlands during site construction.
- Methods for controlling invasive species.
- A description and map of the plant communities that make up the wetland buffer.

Within a month of construction and planting, as-built plans should be sent to the lead agency, including an as-built topographic survey, plant species and quantities used, photographs of the site, and notes about any changes to the original approved plan. Also list the contractor's responsibility concerning plant replacement, fertilization and irrigation, protection from wildlife, and contingency plan requirements.

The maintenance plan submitted with the Final Wetland Mitigation Plan must describe planned maintenance activities, including erosion control and protection of plant materials from herbivores, repair of damage from vandalism, and other activities that may be required over time to maintain site viability.

Contingency plans should be developed in the event of failure or partial failure of mitigation measures. A contingency plan must outline the steps that will be taken if success standards are not met.

After completing the Final Wetland Mitigation Plan, regional environmental staff supply the regulatory agencies with any remaining information required to complete permit applications. If coordination and involvement have taken place in the appropriate manner prior to this stage, permits should be granted with a minimum of delay.

As illustrated in the WSDOT flowchart, a constructability review occurs when the design plan is about 30 percent complete. The constructability review serves to provide the opportunity for consensus among stakeholders.

After permits are received from regulatory agencies, the Mitigation Plan is finalized. The design plan is put in PS&E format after in-house review. Responsibility for this task rests jointly with the project engineer, regional environmental manager, and the regional landscape architect or landscape designer.

(6) Isolated Wetlands Guidance

Isolated wetlands are defined as wetlands not connected by surface hydrology to recognized water bodies such as rivers, streams, lakes and bays. These wetlands

were removed from Section 404 jurisdiction by the U.S. Supreme Court in SWANCC v. U.S. Army Corps of Engineers. Ecology has broad authority under the Water Pollution Control Act to control and prevent the pollution of streams, lakes, rivers, ponds, inland waters, salt waters, and other waters of the state. Isolated wetlands are considered waters of the state. See Section 540.13 for details.

Up-to-date information on how isolated wetlands are regulated is also summarized in a guidance paper available at:

http://www.wsdot.wa.gov/environment/biology/wet_policypapers.htm

(7) High Visibility Fencing

To prevent permit violations during construction, WSDOT Project Delivery Memo #04-04 (August 11, 2004) describes requirements for high-visibility fencing to delineate wetlands and sensitive areas. The memo outlines criteria for identifying wetland and environmentally sensitive areas during project development; contract plans are to identify these areas and show the location of high visibility fencing. See Section 690.02 for details.

(8) Other WSDOT Technical Guidance

- WSDOT Design Manual (M 22-01), Chapters 220 and 240 of the manual are currently being updated. Chapter 220 addresses project environmental documentation while Chapter 240 lists a variety of environmental permits and approvals from government agencies, permit requirements, when to initiate the permits, and the applicable laws or rules. The wetlandapplicable permits and approvals listed in the Design Manual are described in this latter chapter.
- WSDOT Roadside Manual (M 25-30) (July 2003). This manual describes procedures for coordination between all WSDOT partners responsible for roadside activities, including wetland protection.

(9) **Ecology Technical Guidance**

The following Ecology publications are useful sources of information for a range of wetland issues:

- Washington State Wetlands Rating System for Western Washington, #93-74 as revised.
- Washington State Wetlands Rating System for Eastern Washington, #91-58 as revised.
- Wetland Regulations Guidebook, #88-5. Revised 1994.
- Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals, #94-29.
- Washington State Wetlands Identification and Delineation Manual, #96-94.
- Wetlands Mitigation Replacement Ratios: Defining Equivalency, #92-8.
- Restoring Wetlands in Washington: A Guidebook for Wetland Restoration, Planning and Implementation, #93-17.
- Restoring Wetlands at a River Basin Scale: A Guide for Washington's Puget Sound. Operational Draft, #97-99.

- Methods for Assessing Wetland Functions Volume 1, Riverine and Depressional Wetlands in the Lowlands of Western Washington, Part 1, Assessment Methods, #99-115.
- Methods for Assessing Wetland Functions Volume 1, Riverine and Depressional Wetlands in the Lowlands of Western Washington, Part 2, Procedures for Collecting Data, #99-116.

Many of these and other wetland-related publications are available electronically at the web site below. The web site also gives information on how to order copies of the publications.

http://www.ecy.wa.gov/pubs.shtm

Click on Publications, then Publications Index, then Shorelands and Environmental Assistance.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/wet-updatedocs.htm

(10) FHWA Technical Guidance

(a) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents. Wetland issues that should be addressed in the EIS include wetland identification and assessment, impacts to wetlands, evaluation of project alternatives, and identification of practicable measures to minimize adverse impacts.

If the preferred alternative is located in wetlands, the final EIS needs to contain a separate subsection entitled "Only Practicable Alternative Finding." The subsection should include a reference to Executive Order 11990 (see Section 437.03), an explanation for why there are no practicable alternatives, an explanation for why the proposed action includes all practicable measures to minimize harm to wetlands, and a concluding statement that: "Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."

The four WSDOT wetland discipline reports are structured to provide the information necessary to meet the requirements of FHWA's technical advisory. For details, see FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FWHA Directives and Policy Memorandums, then FHWA Technical Advisories, the T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(b) FHWA Environmental Guidebook

FHWA's online Environmental Guidebook includes information on several federal wetland issues, including Section 404 permit requirements and agreements. Refer to FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Index. Select Wetlands or Section 404 Permits.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/index.htm

(c) FHWA Wetlands Analysis and Design

The FHWA web site below includes information on the wetland analysis/design and permitting phase of project development; documents, brochures, and other products; a gallery of wetland pictures; and links to several other wetland web sites.

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Natural Environment, then Wetlands.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/v1ch14.htm

(d) FHWA Documents

The FHWA web site below includes abstracts for documents produced by or for the FHWA regarding wetlands. Many of the documents can be downloaded.

http://www.fhwa.dot.gov/environment/wetland/wet_abs.htm

(11) USEPA Guidance

The USEPA Office of Water provides information on wetland laws, regulations, and guidance at:

http://www.epa.gov/

Click on Programs, then Offices, then Office of Water. Under Wetlands, Oceans and Watersheds, select Wetlands, then click on Laws, Regulations, Guidance, and Scientific Documents.

Or by direct link:

http://www.epa.gov/owow/wetlands/laws/

437.06 Permits and Approvals

Permits relating to wetlands are addressed in the following sections:

Federal

• Section 520.02 – Section 404 Permit

Tribal

• Section 530.03 – Tribal consultation or approval required under federal statutes: Clean Water Act Section 401 (Chehalis and Puyallup)

State

- Section 540.02 Section 401 Water Quality Certification
- Section 540.03 Coastal Zone Management Consistency Certification
- Section 540.08 Other NPDES Permits (programmatic permits on use of herbicides for control of noxious and nuisance aquatic plants, and pesticides for mosquito control)
- Section 540.13 Isolated Wetlands
- Section 540.25 Other State Approvals (temporary exceedance of water quality standards)

Local

- Section 550.02 Shoreline Permits
- Section 550.04 Critical Areas Ordinance Compliance

437.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, or permits that apply to road systems.

Rail – Because WSDOT does not own railroad tracks or rail right-of-way, regulatory requirements for rail projects are coordinated with Burlington Northern & Santa Fe Railway company.

Airports – Public-use airports must address wildlife issues, including wetlands that are hazardous on or near airports. These issues are addressed in the Federal Aviation Administration (FAA) Advisory Circular *Hazardous Wildlife Attractants on or Near Airports* (No: 150/5200-33A), July 27, 2004.

This advisory circular provides guidance on land use practices, including wetlands, that have the potential to attract hazardous wildlife to the vicinity of airports.

- Section 1 describes types of hazardous wildlife attractants on or near airports, land use practices that attract wildlife, and siting criteria for airport projects.
- Section 2 provides information on land uses that are incompatible with safe airport operations. Wetlands are singled out because wetlands are attractive to many species of wildlife.
- Section 3 lists land uses that may be compatible with safe airport operations.
 Agricultural land is given special attention. Wetland areas may be associated with land uses such as landscaping, golf courses, and agricultural crops.
- Section 4 provides guidance on notifying the FAA about hazardous wildlife attractants, including wetlands.

The circular is online at FAA's web site:



Go to the "Quick Find" window and bring up Advisory Circulars, then type 150/5200-33A in the "Search" window, then scroll down to # 1.

Or by direct link:

http://www.faa.gov/arp/publications/acs/5200-33A.pdf

437.08 **Exhibits**

Exhibit 437-1 – Wetland Glossary.

Compensatory Mitigation – The restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources expressly for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization have been achieved. (See also Mitigation Bank.)

Conceptual Mitigation Plan – A document that includes the transportation project description, wetland impacts, and discussion of the mitigation concepts.

Constructed Wetlands – Areas created or restored specifically to treat either point or nonpoint source pollution wastewater. Although a constructed wetland might look the same as a created wetland, different regulations apply. Design and maintenance of constructed wetlands is determined according to their stormwater and hydraulic functions. Vegetation is used to maximize the desired functions.

Created Wetlands – (See Establishment below).

Delineated Wetlands – Wetlands whose boundaries have been identified by a qualified biologist using a standard delineation methodology evaluating soils, vegetation, and hydrology. A right of entry might be required to formally delineate a wetland for project purposes if it does not occur entirely on WSDOT right of way. The delineated boundary is flagged in the field and surveyed. The biology report includes the delineation survey with flag locations and numbering.

Enhancement – The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

Establishment (Formerly **Creation**) – The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.

Exotic Species – Species found in, but not native to, a particular area.

Final Wetland Mitigation Plan – A document that includes description of all wetlands in the project area, wetland site plan, wetland revegetation plan, standards of success, operation and maintenance of the mitigation site, and the monitoring plan.

Function Assessment – Systematic method(s) designed to evaluate the presence and level of performance of wetland functions. Function Assessment methods include, but are not limited to, Reppert et al., Habitat Evaluation Procedure, Wetland Evaluation Technique, Indicator Value Assessment, WSDOT's BPJ Characterization Tool for Linear Projects, and Hydrogeomorphic methods.

Groundwater – Water that occurs below the surface of the earth, contained in pore spaces. It is either passing through or standing in the soil and underlying strata and is free to move under the influence of gravity.

Habitat – The environment occupied by individuals of a particular species, population, or community.

Hydrology – The science that relates to the occurrence, properties, and movement of water on the earth. It includes water found in the oceans, lakes, wetlands, streams, and rivers, as well as in upland areas, above and below ground, and in the atmosphere.

Impact – An action that adversely affects a wetland or other ecosystem; for example, road construction, timber clearing, or agricultural activities that result in wetland conversion or degradation.

Indicator – One of the specific environmental attributes measured or quantified through field sampling, remote sensing, or compilation of existing data from maps or land use reports, used to assess ecosystem condition or functions or exposure to environmental stress agents.

In-kind Compensation – Development of wetlands that are of the same system and class, as defined by Cowardin et al., (1979) in Classification of Wetlands and Deepwater Habitats of the United States, and that provide similar wetland functions and values as those wetlands adversely impacted by development activities.

Invasive Vegetation – Those (typically) nonnative plant species that often out compete native plant communities.

Jurisdictional Wetlands – All naturally occurring wetlands, some wetlands unintentionally created as the result of construction activities, and those created specifically for the compensation of wetland losses. These wetlands are regulated by the Army Corps of Engineers and local jurisdictions. (Ditches created in non-wetland areas that support wetland vegetation are not usually considered jurisdictional wetlands.) Check with the Environmental Services Office for site-specific clarification.

Mitigation – Mitigation means sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts. In the following order of decreasing preference, mitigation is:

- a. Avoiding the impact altogether by not taking a certain action or part of an action. Avoidance has the greatest reliability and is the simplest and most effective way to minimize impacts.
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.

Mitigation Bank – A site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

Mitigation Bank Credit – A unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions, and values, or by some other assessment method.

Mitigation Bank Currency – The medium of exchange of credits for debits in a mitigation bank. The currency represents an amount of wetland area and functions and values.

Mitigation Bank Debit Project – A project that uses credits from a wetland mitigation bank to fulfill regulatory requirements for compensation of impacts to aquatic resources. A debit project may require more than one regulatory approval under federal, state and local rules.

Mitigation Bank Instrument (MBI) – The documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The MBI describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Mitigation Bank Service Area – A designated geographic area (e.g., watershed, county) wherein a mitigation bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and/or other aquatic resources.

Mitigation Bank Sponsor – Any public or private entity responsible for establishing and, in most circumstances, operating a mitigation bank.

Monitoring – The systematic evaluation of a mitigation site to determine the degree to which the site meets its performance standards and to determine if modifications in the maintenance or management of the site is necessary to achieve the ultimate success standards.

Natural Wetlands – Wetlands that exist due to natural forces alone, or unintentionally developed through construction or management practices which alter hydrology. Natural wetlands can be found in unusual areas, including filled areas, some ditches, inactive borrow pits, ponds, and agricultural fields. Natural wetlands are protected by federal, state, and local regulations as well as WSDOT's internal policies.

Non-jurisdictional Wetlands – Non-jurisdictional wetlands include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, canals excavated in uplands, stormwater detention ponds, wastewater treatment facilities created in uplands, and certain agricultural activities and landscape amenities created in uplands. Grass-lined swales and wastewater treatment facilities can be constructed in wetlands but must be so designated and specifically designed for water treatment purposes. Mitigation is required to compensate for the wetland lost to such a facility. The Shoreline Management Act and Growth Management Act include as non-jurisdictional those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. WSDOT has a "no net loss" policy regarding wetlands and will mitigate impacts to wetlands created after that date.

Out-of-Kind Compensation – Compensation that replaces one wetland system and class, as defined by Cowardin, with another.

Performance Measures – Quantifiable thresholds of objectives capable of being measured while the site is being monitored during the intermediate years. These parameters provide an indication as to whether or not the site is progressing as intended. Failure to meet a performance measure should initiate adaptive management.

Preservation (Protection/Maintenance) – The removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with the term preservation. Preservation does not result in a gain of wetland acres but may result in a gain in functions and will be used only in exceptional circumstances.

Restoration – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a **former** wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Re-establishment results in a gain in wetland acres.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

Success Standards – Parameters, generally measured during the last (close-out) year of monitoring, to determine whether or not the objectives were achieved, and the site is in compliance with the terms of the permit. A contingency plan, for remediation, is put into effect should the objectives fail to achieve their individual targets.

Wetland – Area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not usually include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate conversion of wetlands, if permitted by the appropriate authority.

Wetland Buffer – The area adjacent to a wetland that serves to protect the wetland from outside influences. Wetland buffers also contribute to the integral functions of the wetland. Regulated buffer widths vary depending upon the quality of the wetland and guidelines established by the local jurisdiction under the state Growth Management Act. Required buffer widths are identified in the project's wetland/biology report. Wetland buffers must be shown on contract plans sheets. No work may occur within an identified wetland buffer area unless it has been approved by the appropriate permitting agency.

Wetland Functions – Wetland functions are the physical, chemical, and biological processes or attributes that are vital to the integrity of wetland/upland landscape interrelationships (landscape systems).

Wetland Inventory – A wetland inventory is a data collection process during which information about the presence, approximate extent, and in some cases the characteristics of wetlands are collected. Inventories can be general (e.g., aerial photographs) or site-specific (through field inventory work).

Wetland Values – Wetland values are those attributes that, although not necessarily essential to the integrity of the landscape systems, are perceived as valuable to society (Adamus et al., 1991).

440 Energy

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Key to Icon



Web site.*

440.01 Introduction

This chapter covers policy and procedures related to energy consumed in the operation of vehicles and maintenance of facilities, and energy invested in construction activities as well as resources such as materials used in construction.

(1) Summary of Requirements

Energy may be addressed in NEPA/SEPA documents in a section describing energy and fuel consumption. It is also addressed in the "Irreversible and Irretrievable Commitment of Resources" section, which discusses the commitment of natural, physical, human, and fiscal resources, including fossil fuels, labor, and highway construction materials (see **Chapter 480**).

According to FHWA technical guidance, for large-scale projects with potentially substantial energy impacts, the draft environmental document (usually an EIS) should discuss the major direct and/or indirect energy impacts and conservation potential of each alternative. The final environmental document should include conservation measures to be included in the preferred alternative. For most projects, only general construction and operational energy requirements and conservation potential impacts need to be discussed.

WSDOT has no other specific requirements for addressing energy issues at this time, although there may be some requirements for evaluation and use of certain percentages of renewable energy at some point in the future. See the following WSDOT energy web page for the most up-to-date information:



http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/default.htm

For most projects, a Discipline Report is not required.

Unless reduction or minimization of energy consumption is a project goal, such as in mass transit or commuter travel enhancement projects, energy consumption

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

is typically not a key decision making criterion. More often other project benefits such as reduction of congestion, improved travel time, and improvements in level of service are considered as important transportation project goals and reduction of energy consumption is a more implicit benefit.

(2) Abbreviations and Acronyms

None specific to energy. See the general list in **Appendix A**.

(3) Glossary

Renewable energy – fuels, electricity, or other energy forms made from oil seed, recycled biomass, wind, solar, hydroelectric (tidal/wave or current driven) geothermal, etc. that can be regenerated from existing natural resources.

440.02 Applicable Statutes and Regulations

See **Appendix D** for other statutes referenced in the EPM.

(1) National Environmental Policy Act/ State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section <u>4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to <u>energy resources</u> are given due weight in project decision-making. The State Environmental Policy Act (SEPA), mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ) State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see **Chapter 410** and **Chapter 411**.

(2) Other

None identified.

440.03 Policy Guidance

The Transportation Commission's Policy Catalog contains a specific policy on meeting environmental responsibilities related to energy: "Minimize, and avoid when practical, air, water and noise pollution; energy usage; use of hazardous materials; flood impacts; and impacts on wetlands and heritage resources from transportation activities."

The Commission also has a specific policy on use of non-renewable resources. Policy 6.3 acknowledges that present transportation systems and land use patterns, oriented to the single occupant vehicle, promote inefficient use of non-renewable energy resources. The Commission's goal is to "improve the energy efficiency of the transportation system and reduce the consumption of and dependence upon non-renewable resources.

In the future, the emission of greenhouse gases (such as carbon dioxide) that leads to global climate change may be considered a secondary impact from the construction of transportation infrastructure. Although emissions of carbon dioxide from the combustion of vehicle fuels/energy is currently unregulated, check with WSDOT's

Air Quality, Acoustics and Energy section for any additional regulations, policy changes, or environmental stewardship opportunities.

For additional information see the WSDOT web site at:

1

http://www.wsdot.wa.gov/environment/

Click on Air Quality, Acoustics and Energy.

Or directly at:



http://www.wsdot.wa.gov/environment/air_noise/default.htm

Also, see the USEPA web site at:



http://yosemite.epa.gov/oar/globalwarming.nsf/content/EmissionsNational.html

440.04 Interagency Agreements

None.

440.05 Technical Guidance

(1) Discipline Report

WSDOT's Energy Discipline Report provides the information required on large scale projects. Energy Discipline Reports are needed when an EIS is required for a project. Energy discipline reports would rarely ever be involved for projects requiring other environmental documentation.

The Energy Discipline Report Checklist (**Exhibit 440-1**) serves as a general guide for preparing an energy discipline report.

Following are additional guidelines for analyzing energy resources..

(a) Affected Environment

Include existing energy consumption (if applicable).

(b) Impacts

Where the proposed project will cause no net increase in energy consumption, say so and briefly explain why. If the project will cause an increase in energy consumption, consider in terms of BTUs or quantities of fuel consumed:

- Direct energy consumed in operation of vehicles predicted to use the facility, compared to existing facility (if any). Identify pay-back period. Consider effects of increased or decreased smoothness of traffic flow.
- Energy consumed in maintenance of the facility, compared to existing facility (if any).
- Energy consumed in the region as a result of operation of the facility, compared to existing energy consumption. Consider effects of increased or decreased smoothness of traffic flow, vehicle miles traveled, and growth generated by the project.

- Impact on production of energy, if any.
- Combined energy used during construction versus energy used (or saved) during operation. Does one affect the other? Are they substantial when added together?

(c) Mitigation

Describe:

- Mitigation measures and commitments during operation.
- Mitigation measures considered or available but not included, with reasons why.

(d) Construction Activity Impacts

All impacts associated with construction of the project are to be addressed in a Construction Activity Impacts section of the EIS. Provide the following information, as appropriate, for inclusion in that section.

Under "Impacts," consider temporary construction effects, such as:

- Impact on local fuel availability during construction.
- Energy resources needed and source of energy invested in construction activities and materials used in construction.
- Need to develop additional energy sources during construction.
- Any impact on production of energy.

Under "Mitigation," describe:

- Mitigation measures and commitments during construction.
- Mitigation measures considered or available but not included, with reasons why.

(2) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including specifically the sections on energy impacts. For most projects, the draft EIS should discuss the general construction and operational energy requirements and conservation potential of various alternatives under consideration.

For large-scale projects with potentially substantial energy impacts, the draft EIS should discuss the major direct and/or indirect energy impacts and conservation potential of each alternative. Direct energy impacts refer to the energy consumed by vehicles using the facility. Indirect impacts include construction energy and such items as the effects of any changes in automobile usage. The alternative's relationship and consistency with a State and/or regional energy plan, if one exists, should also be indicated.

The final EIS should identify any energy conservation measures that will be implemented as a part of the preferred alternative.

For details, see FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(3) USDOT Guidance on Fuel Consumption and Air Pollution

Evaluation of a project's effects on energy supply and demand may not be considered necessary because of the availability of fuel in a worldwide economy. However, the impacts of energy consumption can be estimated in terms of fuel consumption effects on air quality.

Refer to USDOT Order 5610.1C, Attachment 2, Page 12; and the following documents:

- Energy Requirements for Transportation Systems, USDOT, June 1980;
- Procedure for Estimating Highway User Costs, Fuel Consumption, and Air Pollution, USDOT, March 1980.

440.06 **Permits and Approvals**

None.

440.07 **Non-Road Project Requirements**

The requirements to address energy requirements for non-road projects are assumed to be the same as for road projects.

440.08 **Exhibits**

Exhibit 440-1 – Energy Discipline Report Checklist.



Discipline Report Checklist Energy

Projec	ct Nam	e:				
Conta	ct Nam	ne:				
Date I	Receive	d:			Reviewer:	
(SAT =	= Satisfa	ctory; I I	NC = In	comple	ete; MIS = Missing; N/A = Not Applicable)	
FHWA the con	- Tech itents of	nical Ad	visory 7 OT ener	ſ 664Ô.	oliance with federal regulations (U.S. DOT Order 5610 IC and .8A). The Energy Discipline Report Checklist is intended to identify ly. The checklist may be modified as appropriate in consultant with	
l.	Sumn	nary				
the Ene	Summarize the analysis done and conclusions reached, with enough detail so the report can be included in the Energy Section of the environmental document. If this information is available in another section of a larger document, please provide those sections to the reviewer to complete the information.					
SAT	INC	MIS	N/A			
				A.	Objectives of the project.	
				B.	Methods.	
				C.	Current energy environment, including impacts.	
				D.	Impacts of all alternatives, including the no-action alternative.	
				E.	Recommended mitigation.	
				F.	Comparison of alternatives relative to no-action.	
II. Project Description						
Include relevant aspects of each alternative:						
SAT	INC	MIS	N/A			
				A.	Project location description.	
				B.	Purpose and need.	
				C.	Changes to existing alignment.	
				D.	Vicinity maps.	
				E.	Project maps.	

III.	Metho	dology					
SAT	INC	MIS	N/A				
				A.	Methods (indirect and direct) are identified.		
				B.	Use of methods are explained.		
				C.	Methods are appropriate for project.		
IV.	Affect	ed Env	ironme	nt			
	7	<u> </u>					
SAT	INC	MIS	N/A				
				A.	Impact (if any) on existing energy supplies.		
				B.	Location of existing fuel sources.		
				C.	Impact (if any) on future energy supplies.		
				D.	Affects on local energy production (if any).		
V.	Impact Analysis						
SAT	INC	MIS	N/A				
				A.	VMT (Vehicle Miles Traveled).		
				B.	BTUs for no-action and all alternatives.		
				C.	Quantities of fuel consumed for no-action and all alternatives.		
				D.	Comparison of all alternatives consumption relative to no-action.		
				E.	Table comparing the operational energy consumed for each alternative relative to no-action.		
				F.	Table comparing the construction energy consumed for each alternative relative to no-action.		
				G.	Construction Costs.		
				H.	Construction equipment, construction materials, construction transportation (workers to and from site).		
VI.	Mitigation						
For each alternative, include a discussion of the relative increase or decrease in fuel consumption compared to no-action for both indirect and direct consumption and the proposed mitigation (e.g., limiting the idling of construction equipment, encouraging carpooling, locating staging areas close to work site).							

VII.	Refer	ences			
SAT	INC	MIS	N/A		
				Α.	
VII.	Appe	ndices			
SAT	INC	MIS	N/A		
				Α.	
VIII.	Electi	onic C	opies d	of Suppo	rt Files / Calculations (as applicable)
SAT	INC	MIS	N/A		
П			П	Α.	

446 Noise

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Key to Icons



Web site.*



Interagency agreement.

446.01 Introduction

This chapter focuses primarily on environmental noise procedures for roadways. See Section 446.07 for information applicable to procedures for transit and park and ride facilities.

The level of noise (defined as unwanted sound) near state highways depends on six things:

- Traffic volume
- Speed of the traffic
- Percentage of trucks in the flow of traffic
- Distance to the highway
- Intervening topography
- Atmospheric conditions

Generally, traffic noise is increased by heavier traffic volumes, higher speeds, and a greater percentage of trucks.

WSDOT has several strategies for controlling highway noise:

- Preserve existing buffer zones. Work with stakeholders to retain lands owned by WSDOT and preserve beneficial topographic features.
- Work to reduce source emissions. Lobby for improved new vehicle and tire noise standards.
- Free communities from "unnecessary" intrusion. Support local jurisdictions in establishing principal routes for buses and trucks.
- Review local land use plans and advise local agencies to help achieve compatible development along highways.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

- Identify potential noise impacts and mitigation measures early in the planning and design stages of highway improvements
- Continually review technical periodicals related to noise abatement methods to stay abreast of developments.
- Maintain a prioritized listing of noise walls proposed for noise sensitive properties that were developed before acquisition of highway right-of-way.

For detailed information see WSDOT's environmental web site:



http://www.wsdot.wa.gov/environment/

Click on Air/Acoustics/Energy.

Or by direct link:



http://www.wsdot.wa.gov/environment/air_noise/default.htm

Additional research and pilot testing is underway to look at quieter pavement options, but pavements have not been approved as an official form of noise mitigation at this time. For additional information on quieter pavements, see the WSDOT Materials Laboratory web site at:



http://www.wsdot.wa.gov/biz/mats/pavement/QuieterPavements.htm

Summary of Requirements (1)

A traffic noise analysis is required by law for federally funded projects and required by state policy for other funded projects that: (1) involve construction of a new highway, (2) significantly change the horizontal or vertical alignment of an existing highway, or (3) increase the number of through traffic lanes on an existing highway. Exhibit 446-1 summarizes the noise analysis process.

All completed noise reports shall be distributed to local jurisdictions (planning and executive branches) for identification of impacts and use in local land use decision-making.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

dB decibel

dBA A-weighted decibels

EDNA Environmental Designation for Noise Abatement

FTA Federal Transit Administration

Equivalent sound level Leq

Equivalent sound level for a 24-hour period $L_{eq(24)}$

Day-night sound level L_{dn} **NAC** Noise Abatement Criteria

(3) Glossarv

See **Appendix B** for a general glossary of terms used in the EPM.

Abatement – Reduction in degree or intensity.

Background Noise - The total of all noise in a system or situation, independent of state highway traffic noise under study.

Barrier – A solid wall or earth berm located between the roadway and receiver location that provides noise reduction.

Design Year – The future year used to estimate the probable traffic volume for which a highway is designed, usually 10 to 20 years from the beginning of construction.

EDNA - Environmental designation for noise abatement, being an area or zone (environment) within which maximum permissible noise levels are established.

Existing Noise Level – Natural and man made noises considered to be usually present within a particular area's acoustic environment.

Impacted Community – Noise sensitive receptor sites (such as schools or neighborhoods) where people would be exposed to substantially increased noise levels or noise levels that approach abatement criteria due to a project.

Noise Abatement Criteria (NAC) – Noise levels for various activities or land uses which, when approached or exceeded, are considered to be traffic noise impacts.

Traffic Noise Impacts – Impacts which occur when the predicted traffic noise levels approach or exceed the Noise Abatement Criteria or when the predicted traffic noise levels substantially exceed the existing noise levels.

Type I Project – A proposed highway construction at a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of traffic through lanes.

Type II or Retrofit Project – A proposed project for noise abatement on an existing highway or highway configuration.

446.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to noise issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 446.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC <u>4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as noise impacts are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see Chapter 410 and Chapter 411.

(2) Federal Noise Control Act and Implementing Regulations

The Noise Control Act of 1972 (42 USC 4901 *et seq.*) authorized the establishment of federal noise emission standards. Companion legislation (23 USC 109 (i)) directs the Secretary of Transportation to develop and implement traffic noise standards for highway projects.

Noise impact criteria and abatement implemented by FHWA are in 23 CFR 772 (Procedures for Abatement of Highway Traffic Noise and Construction Noise). This regulation requires preparing a noise study to determine what noise impacts, if any, will result from the proposed highway improvement and what measures will be taken to lessen these impacts. If noise impacts are expected, noise-reduction measures that are determined by the state highway agency and FHWA to be practicable, reasonable, and acceptable to the public must be incorporated into the highway improvement.

Laws can be accessed at the following web site:

http://www4.law.cornell.edu/uscode/

Enter Title 42 Section 4901, then click on Go To Title and Section.

Enter Title 23 Section 109, then click on Go To Title and Section.

Or by direct links:

http://www4.law.cornell.edu/uscode/42/4901.html

http://www4.law.cornell.edu/uscode/23/109.html

Regulations can be accessed at the following web site:

http://www.gpoaccess.gov/cfr/index.html

Enter 23CFR772 and submit.

Or by direct link:

http://www.access.gpo.gov/nara/cfr/waisidx_01/23cfr772_01.html

(3) State Noise Legislation and Implementing Regulations

The Noise Control Act of 1974 (RCW 70-107) authorizes an expansion of statewide efforts for abatement and control of noise to protect the health, safety, and welfare of the people; the value of property; and the quality of the environment.

The Washington State Department of Ecology (Ecology) is responsible for implementation under the following regulations:

- WAC 173-58 Establishes standard procedures for measuring sound levels
 of sources regulated by Ecology, including, but not limited to,
 environmental noise, motor racing vehicles, construction, float planes,
 railroads, and aircraft engine testing.
- WAC 173-60 Establishes maximum noise levels permissible in identified environments, and EDNA standards measured at the receiver's property line. Highway traffic is exempt from this regulation; however, it does apply to highway construction noise at night between the hours of 10 p.m. to 7 a.m.
- WAC 173-62 Sets noise emission standards for new motor vehicles for the operation of motor vehicles on public highways. These standards provide several methods of evaluating motor vehicle noise levels.

(4) Local Noise Ordinances

Noise generated by construction or maintenance of state highways or other transportation facilities during nighttime hours (typically 10 p.m. to 7 a.m.) are subject to local ordinances and may require a permit (see **Section 446.06** and **Chapter 510**).

446.03 Policy Guidance

The Washington Transportation Commission's Policy Catalog contains a specific policy on noise abatement. Policy 6.3.7 states that: "Noise is a form of pollution which increases when transportation volume and speeds increase, and which may result from land, water, and air-based systems. Noise detracts from environmental quality and is ultimately linked to transportation policy." The general policy is to minimize noise impacts from transportation systems and facilities.

446.04 Interagency Agreements

No interagency agreements have been identified for highway noise. See **Section 446.07** for an Interagency Agreement related to transit projects. See **Appendix E** for a complete index to interagency agreements referenced in the EPM.

446.05 Technical Guidance

Guidance for conducting traffic noise studies and preparing documentation is provided in the documents described in this section.

(1) WSDOT

(a) Traffic Noise Discipline Report

WSDOT's Traffic Noise Discipline Report provides the information required for EAs, EISs, and other environmental documents. A Traffic Noise Discipline Report is needed when a roadway project: (1) involves construction of a new roadway, (2) significantly changes the horizontal or vertical alignment of a roadway, or (3) increases the number of through traffic lanes on an existing highway. Reports and consideration of abatement may also be required on projects that substantially alter the ground contours surrounding the roadway. The rationale for determining that a full Discipline Report is not needed should be documented within the Environmental Review Summary or Environmental Classification Summary.

The Traffic Noise Discipline Report Checklist (Exhibit 446-2) serves as a general guide for preparing a noise discipline report. The report should include: project description, noise characteristics, methodology, existing land use, noise levels for existing, future, and no-build conditions, impact analysis, mitigation analysis, construction noise, bibliography, and supporting documentation.

(b) Data Requirements

Before requesting a traffic noise discipline report, the WSDOT project manager needs to compile relevant data that will be needed by the analyst.

Such data includes MicroStation (CADD) files, traffic data, and land use and zoning maps. For a list of data requirements, see:

角

http://www.wsdot.wa.gov/environment/air noise/default.htm

Click on Air, Acoustics, & Energy web site, then Noise Study Data Requirements (under Acoustics).

Or by direct link:



http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/nsdr.htm

(c) Consultant Scopes of Work

Exhibit 446-3 is a sample scope of work that can be used as a guide in contracting with consultants for traffic noise studies. For an updated scope of work, see the WSDOT Acoustics website at:

http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/default.htm

(d) WSDOT Traffic Noise Analysis and Abatement Policy and Procedures

This document provides guidance and criteria for conducting traffic noise impact and mitigation analyses consistent with federal highway traffic noise standards in 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. It includes information on qualifications for noise analysts, definitions, when noise abatement is required, methodology, public involvement, coordination with local officials, and highway construction noise. For the complete document, see:



http://www.wsdot.wa.gov/environment/

Click on Air/Acoustics/Energy, then Air, Acoustic, & Energy web site, then Noise Policies and Procedures (under Acoustics).

Or by direct link:



http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/policies.htm

(e) WSDOT Noise Evaluation Procedures for Existing State Highways.

WSDOT Directive D22-22 (Exhibit 446-4) gives guidelines for conducting noise inventories for retrofits of existing state highways (Type II projects) and establishing priorities for noise abatement projects. It includes procedures to evaluate residential equivalencies for all roadway noise projects.

(f) WSDOT Roadside Manual

The WSDOT *Roadside Manual* (M 25-30), Chapter 460 (Noise Abatement), provides additional information on safety, visual quality, and maintenance that may be useful for designers of noise barriers.

Development Review Good Practices Manual (g)

Chapter 3-3 of this manual, Environmental Issues, gives general guidelines that local jurisdictions and private developers should follow when considering development and noise impacts on state roadways.

(h) WSDOT Acoustic Web Page

The WSDOT Acoustic web page provides information for noise analysts. It gives links to directional documents and provides WSDOT technical guidance. Data for preparing a noise model is available. The information will be useful in designing noise abatement and analyzing noise. It can be found directly at:



http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/ default.htm#Acoustics

FHWA (2)

FHWA Technical Advisory (a)

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents. For noise, the draft EIS should include a summary of the noise analysis, including the following:

- Brief description of noise-sensitive areas, including developed and undeveloped areas for land uses such as residences, business, schools, and parks.
- Extent of the impact (in decibels) at each sensitive site.
- Noise abatement measures considered for each impacted area, and costs for those likely to be incorporated into the proposed project.
- Noise impacts for which no prudent solution is reasonably available and the reasons why.

For details, see FHWA's home page:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

FHWA Highway Traffic Noise Analysis and Abatement, Policy and Guidance (b) This document (June 1995) is available at the Highway Traffic Noise Products (abstracts) web site:



http://www.fhwa.dot.gov/

Click on FHWA Programs; then Environment; then Highway Traffic Noise; then Regulation and Policy, and Highway Traffic Noise Analysis and Abatement: Policy and Guidance.

Or by direct link:

(c) FHWA Guidance on Construction Noise

FHWA guidance on highway construction noise can be found in FHWA Special Report Highway Construction Noise: Measurement, Prediction, and Mitigation (May 2, 1977), available online at:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environmental, then Highway Traffic Noise, Regulations and Policy, then Special Report: Highway Construction Noise: Measurement, Prediction and Mitigation then table of contents, then Chapter 3

Or direct link:



http://www.fhwa.dot.gov/environment/noise/highway/hcn03.htm

Technical Advisory T 6160.2 Analysis of Highway Construction Noise, March 13 1984 has been canceled.

FHWA Guidance On Quieter Pavement

FHWA guidance on when states can consider the use of quieter pavements for noise mitigation was published on January 24, 2005. It can be found online at:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Highway Traffic Noise, Regulations and Policy, then Guidance on Quiet Pavement Pilot Programs

Or direct link:



http://www.fhwa.dot.gov/environment/noise/gpppeml.htm

Other Technical Resources

FHWA's home page contains links to numerous references on highway construction and traffic noise analysis and abatement:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook.

Or by direct link for Noise:



http://environment.fhwa.dot.gov/guidebook/chapters/v1ch8.htm

Or by direct link for Environmental Guidebook:

http://environment.fhwa.dot.gov/guidebook/index.htm

446.06 Permits and Approvals

The only noise permits required are variances from state and local noise laws for construction and maintenance activities during nighttime hours (WAC 173-60). For details, see Section 550.07, Section 620.07, and Section 720.04(10).

446.07 Non-Road Project Requirements

(1) Rail, Transit and Park and Ride Facilities

For many projects involving rail or transit and park and ride facilities, the Federal Transit Administration (FTA) is responsible for implementation of noise and other environmental protections under 23 CFR 771, Environmental Impact and Related Procedures. Noise studies are also required for these facilities.

An Interagency Agreement for coordinated noise analysis and abatement policy and procedures has been developed by FTA, FHWA, WSDOT, and Sound Transit. The current agreement (as of February 2001) documents an agreed-upon noise methodology and criteria for integrated highway and transit projects. The document serves as guidance to those involved in noise discipline studies for environmental documentation on these types of projects.

FTA-Sound Transit-FHWA-WSDOT Agreement on Noise Methodology and Criteria for Integrated Highway and Transit Projects. February 1, 2001.

The agreement is online at:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

FTA technical guidance for mass transportation noise analysis is available in *Transit Noise and Vibration Impact Assessment*, April 1995 (DOT-T-95-16). Another resource is the FTA General Noise Assessment Spreadsheet designed as an aid in using the FTA General Noise Assessment Procedures. Resource information from FTA is provided at the web site below and the assessment procedures link follows:

http://www.fta.dot.gov/transit_data_info/reports_publications/publications/environment/4805_5144_ENG_HTML.htm#Guidnce

(2) Ferry, Rail, and Air Facilities

Railroads – Measurement of sound levels is regulated under 42 USC 4916 and WAC 173-58. Rail projects require a vibration analysis. Contact the WSDOT Environmental Services Office Air Quality, Acoustics and Energy section for assistance.

Ferries – Ferry projects may require a permit to drive piling during or after set work hours. Additionally preparation of a Biological Evaluation (BE) includes addressing noise impacts to threatened and endangered species. Vessels, as defined in RCW 88.12.010 (21), are regulated for noise under RCW 88.12.

Airports – WSDOT airports have noise abatement guidelines.

446.08 Exhibits

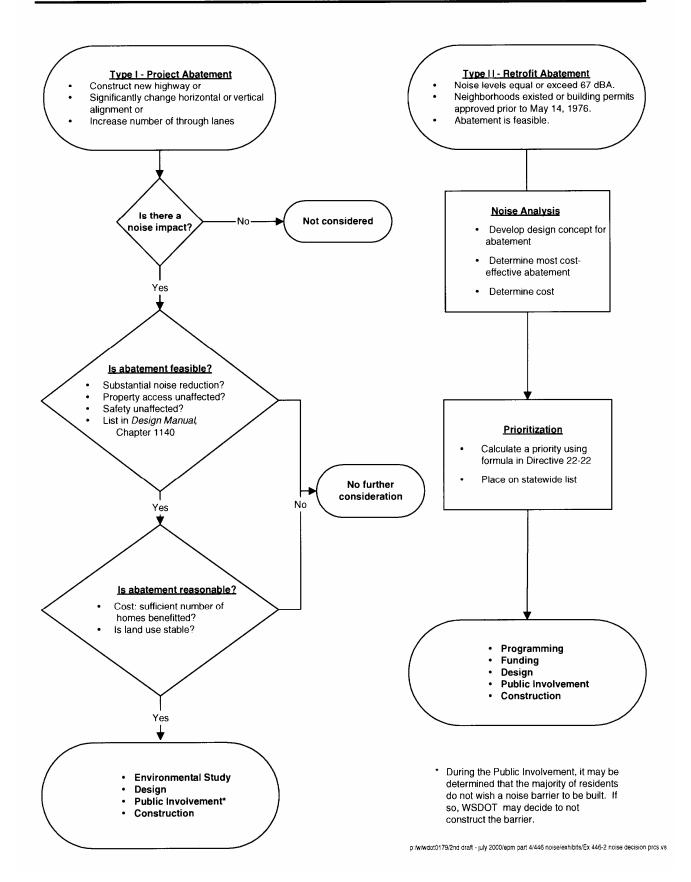
Exhibit 446-1 – Traffic Noise Abatement Decision Process.

Exhibit 446-2 – Traffic Noise Discipline Report Checklist.

Exhibit 446-3 – Sample Scope of Work for Highway Noise Analyses.

Exhibit 446-4 – Noise Evaluation Procedures for Existing State Highways (WSDOT Directive D22-22).

Traffic Noise Abatement Decision Process





Discipline Report Checklist Traffic Noise

Project Name:								
Contact Name:								
Date I	Date Received: Reviewer:							
(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable) Answers are required for questions that have no N/A box. Noise impact studies are conducted in compliance with federal regulations 23 CFR 772. The Noise Discipline Report Checklist is intended to identify the contents of a WSDOT noise study. The checklist may be modified as appropriate in consultant with the WSDOT Acoustics section.								
l.	Sumn	nary						
the No	Summarize the analysis done and conclusions reached, with enough detail so the report can be included in the Noise Section of the environmental document. If this information is available in another section of a larger document, please provide those sections to the reviewer to complete the information.							
SAT	INC	MIS	N/A					
				A.	Objectives of the project.			
				B.	Current noise environment, including impacts.			
				C.	Impacts of all alternatives, including the no-build alternative.			
	D. Recommended mitigation.		Recommended mitigation.					
II.	Projec	rt Desc	rintion					
II. Project Description Include relevant aspects of each alternative:								
SAT	INC	MIS	N/A					
				A.	Type of roadway (elevated, depressed, at-grade).			
				B.	Number of lanes.			
				C.	Changes to existing access.			
				D.	Vicinity maps.			
				E.	Project maps.			

III.	Characteristics of Noise			loise		
SAT	INC	MIS	N/A			
				A.	Definition and characteristics of noise.	
				B.	Nature of the logarithmic scale.	
				C.	Explanation of noise descriptors used in the report.	
				D.	Typical sound source noise levels.	
IV.	Methodology Used					
SAT	INC	MIS	N/A			
				A.	Abatement criteria.	
				B.	Noise Model.	
				C.	Traffic data for each alternative (existing and design year).	
				D.	Speeds.	
				E.	Vehicle type percentages.	
				F.	Peak hours volumes.	
V.	Affected Environment					
SAT	INC	MIS	N/A			
		IVIIS				
				A.	Existing land use including zoning and major terrain features.	
VI.				A.	Existing land use including zoning and major terrain features.	
				A.	Existing land use including zoning and major terrain features.	
VI.	Impac	□ et Analy	⁄sis	A. A.	Existing land use including zoning and major terrain features. Existing and future noise levels.	
VI.	Impac	□ et Analy MIS □	vsis N/A			
VI. SAT	Impac INC	□ et Analy MIS □	vsis N/A	A. B.	Existing and future noise levels. Table comparing the noise levels at each receiver for existing conditions and the design year for each alternative, the number of residences or other noise-sensitive sites represented by each	

VIII.	Construction Noise					
SAT	INC	MIS	N/A			
				A.	Typical construction equipment noise levels.	
				B.	Nature and duration of construction noise.	
				C.	C. Typical means of reducing construction noise.	
				D.	Local ordinances relating to construction noise.	
				E.	Land uses or activities that may be affected by construction noise.	
IX.	Biblio	graphy	•			
IX. SAT	Biblio	graphy MIS	N/A			
				A.		
	INC	MIS		A.		
SAT	INC	MIS		Α.		
SAT	INC Data	MIS	N/A	A. A.	Noise Model Data files.	

Sample Scope of Work for Highway Noise Analyses

The CONSULTANT shall prepare a technical memorandum documenting the methodology and assumptions used to guide the noise analysis.

The CONSULTANT shall conduct a reconnaissance of the project study area to identify all of the land uses and locate noise sensitive properties within 500 feet of the project as described in 23 CFR Part 772. The CONSULTANT shall note physical and terrain features that affect noise propagation and features that may be altered during construction.

The CONSULTANT shall then conduct a noise study for the project area based on the guidelines presented in the current *Federal Aid Policy Guide*, *Sub-chapter H*, *Part 772* Procedures for Abatement of Highway Traffic Noise and Construction Noise, and the WSDOT Traffic Noise Abatement Policy and Procedures. Noise measurements will be conducted at sites as needed to calibrate the traffic noise model and to ensure complete description of existing noise levels that are representative of the land uses along the proposed alignments.

All measurements will be conducted for 15 minute sampling periods during daytime off-peak hours (10 AM to 4 PM) when traffic is moving freely. At each measurement site, traffic counts will be conducted concurrently with the noise measurements. All noise sources will be noted and those that may interfere with future mitigation determination will be identified. Traffic volumes that are counted during the noise measurement survey will be modeled and the resulting sound levels will be compared with the measured sound levels to reach close agreement. The use of shielding and alpha factors may be needed to adjust modeled receptor noise levels and will be used in consultation with the WSDOT Acoustic Program Manager or designee. Once the model has been calibrated, existing peak hour traffic will be used with speed limit speeds to calculate existing peak hour noise levels. In locations where there are no existing roadways, the loudest noise hour from a 24 hour noise measurements will be used to represent the existing noise level.

The CONSULTANT shall model the future year traffic noise level with and without the proposed project using the FHWA Traffic Noise Model (TNM) or other appropriate model agreed upon by FHWA and WSDOT Acoustics section. Peak hour noise in the design year for each alternative will be modeled at selected noise sensitive receptors based on forecast traffic volumes. Modeling must be adequate to accurately predict the noise levels at each of the receptors, assess the number of properties within 500 feet of the project that are impacted or will be impacted and determine the increase in traffic noise and amount of reduction to each outdoor area as a result of mitigation.

In accordance with FHWA and WSDOT requirements, noise abatement measures will be considered at locations along the alignments where traffic noise impacts are predicted. Mitigation measures considered must include walls or berms, as well as the five other FHWA methods specifically mentioned in 23 CFR 772. The CONSULTANT shall provide location, length, height, profile, estimated cost and number of benefiting noise sensitive properties for each proposed barrier. The analysis will contain a complete discussion of impacted areas that do not meet WSDOT's criteria for abatement and specifically note reasons for not including mitigation.

Construction activities that may cause annoyance at nearby noise sensitive land uses will be qualitatively assessed by the CONSULTANT in accordance with WSDOT's procedures. The CONSULTANT will discuss local laws applying to construction noise.

Deliverables:

- 1. Noise Model Data files (electronic version),
- 2. Record of field measurements and traffic counts,
- 3. Noise Analysis Technical Memorandum containing:
 - 3.1. Tables of contents, figures and charts
 - 3.2. A summary including the impacts of each alternative and mitigation recommended
 - 3.3. A project description including relevant aspects of each alternative and a vicinity map
 - 3.4. A characteristic of noise discussion of noise
 - 3.4.1. The definition and characteristics of noise
 - 3.4.2. Nature of the logarithmic scale
 - 3.4.3. Noise descriptors used in the report
 - 3.4.4. Typical sound source noise levels
 - 3.5. Discussion of methodology used including abatement criteria, noise model and traffic data with speeds, vehicle type percentages and peak hour volumes for existing and design year for each alternative.
 - 3.6. Discussion of existing land use including areas of zoning and major terrain features.
 - 3.7. Discussion of existing and future noise levels.
 - 3.8. An impact analysis that includes a table comparing the noise levels at each receiver for existing conditions and the design year for each alternative as well as the number of sensitive residences or other sites represented by each receiver.
 - 3.9. A mitigation analysis that includes a discussion for each impacted receiver of the reasonableness and feasibility of each of the six methods of mitigation listed in 23CFR772 as well as a map showing the location of each receiver and proposed mitigation.
 - 3.10. A construction noise section that includes:
 - 3.10.1. Typical construction equipment noise levels.
 - 3.10.2. Nature and duration of construction noise.
 - 3.10.3. Typical means of reducing construction noise.
 - 3.10.4. Local ordinances relating to construction noise.
 - 3.10.5. Land uses or activities that may be affected by construction noise.
 - 3.11. Bibliography

Noise Evaluation Procedures for Existing State Highways

WSDOT Directive D 22-22 Effective Date: November 2, 1987

Assistant Secretary for Highways

I. INTRODUCTION

A. PURPOSE:

This Directive sets forth guidelines to conduct a noise inventory for existing state highways and establishment of noise priority sites.

B. SUPERSESSION:

D 22-22, "Noise Evaluation Procedures for Existing State Highways", January 17, 1975.

C. REFERENCES:

- 1. FHWA Federal-Aid Highway Program Manual, Vol. 7, Chapter 7, Section 3 "Procedures for Abatement of Highway Traffic Noise and Construction Noise," August 9, 1982.
- 2. IDC, August 26, 1983, Position Paper "Criteria for Programming of Noise Attenuation Work" from Tom McLain to District Administrators.

II. RULES

- A. Part 8 of FAHPM 7-7-3 promulgates rules for noise abatement on Type II projects (existing highways) with federal aid participation the same as the federal-aid system on which the project is located.
- B. The priority listing is developed based on an inventory of noise sensitive developments which existed, or for which a building permit had been approved, prior to May 14, 1976.
- C. Department program, budget, and fiscal procedures apply to any noise abatement project that may be constructed from the noise inventory and priority listing.
- D. The steps in Section III, PROCEDURES are used to determine the noise sensitive developments that have the highest priority.
- E. The Department's priority listing is current as of August 19, 1986. (See Appendix A.) When new sites must be investigated, because of citizen complaints or public official's concerns, the procedures in this Directive will be used to prioritize those new sites.

III. PROCEDURES

- A. Because the priorities are part of the public record, an accurate administrative record is kept identifying the steps taken to establish the final priority number of each site.
- . Special care must be taken to identify those elements not included in the priority listing, and why they were not, for administrative review and use in support of the Department's actions.

B. NOISE INVENTORY, PRIORITIZATION PROCEDURES, AND SITE IDENTIFICATION

- 1. Conduct initial traffic noise evaluation to eliminate highway sections where traffic is insufficient to create a Leq = 67 dBA at the assumed right of way or actual right of way. This can be done in the office.
 - a. Use "Annual Traffic Report" data or available special traffic studies.
 - b. Predict noise levels based on FHWA RD-77-108 'FHWA Highway Traffic Noise Prediction Model."
 - c. Use posted traffic speed.
 - d. Minimize on-site investigations at this stage.
- 2. Coordinate highway sections potentially having excessive noise with adjacent residential property or special sites.
 - a. Eliminate all highway sections without adjacent residential or special sites or without physically practical solutions.
 - b. Eliminate areas where roadside development, including access driveways, preclude noise abatement measures.
- 3. Continue inventory procedure with expanded emphasis upon developed areas with potentially excessive noise.
 - a. Using the FHWA RD-77-108 model, plot contour of Leq = 67 dBA on statewide arterial route maps or other suitable maps where appropriate developments exist.
 - b. Segregate impacted residential areas into workable units for subsequent analysis.

- 4. Conduct on-site inspection as preparation for second phase of prediction.
 - a. Eliminate sites where terrain will minimize a noise impact to less than a Leq = 67 dBA or prohibits feasible abatement measures such as a housing development on a steep slope above the highway.
 - b. Secure criteria of design concepts for abatement (barrier wall, earth berm, etc.).
 - c. Measure noise to confirm original predictions.
- 5. Prepare fully-documented analysis of impacted work units.
 - a. Apply second analysis of work unit areas (to secure documented Leq dBA level for "Before Impact Factor"). See Section IV.
 - b. Include abatement design concepts in analysis for "After Impact Factor."
 - c. Develop cost estimates for abatement treatment.
 - d. Plot noise contours based upon the most cost-effective attenuation method and inventory residences within work units.
 - e. Complete the Benefit Cost Computations of Section IV and arrange the work units in resultant numerical priority sequence.
- 6. Submit the priority listing to the Office of Project Development for approval.

IV. COMPUTATION PROCEDURES OF NOISE PRIORITY NUMBERS

A. NOISE IMPACT.

The noise impact for a given group exposed to the same noise level Leq is

Group Impact = N x U.F. x 2 (
$$\frac{\text{Leq - Lref}}{10}$$
), where ($\frac{\text{Leq - Lref}}{10}$) is a power of 2.

where N is the number of people in a given group exposed to a noise level of Leq, U.F. is the usage factor for the site, and Lref is the appropriate "NOISE ABATEMENT CRITERIA" for the land use of the site as provided in TABLE 1 FAHPM 7-7-3.

Group impact is computed for each group and added together for each site to give the site impact. This is done for the site both before and after abatement assumptions. This difference is called BENEFIT.

B. PRIORITY NUMBER

- 1. Obtain the benefit for each site.
- 2. Estimate the cost of noise barriers for each site. Benefit divided by cost in \$1,000s is the priority number.

C. USER NUMBERS

- 1. RESIDENTIAL. Based on statistics of Washington State obtained by the Office of Fiscal Management in 1980, the average number of occupants in a single family home is three per house and two per apartment or mobile home.
- 2. SPECIAL SITES. The user number for schools, parks, churches, hospitals, etc., is the estimate of the number of users.

D. USAGE FACTORS

Established usage factors are shown below.

SITE	Hours/ Day	Days/ Week	Months/ Year	Usage Factor
HOMES	24	7	12	1
APARTMENTS AND MOBILE HOMES	24	7	12	1
HOSPITALS	24	7	12	1
CHURCHES	6	3	12	.11
SCHOOLS	10	5	9	.22
PARKS	10	7	5	.17

Factors for other special sites shall be submitted for approval.

E. EXAMPLE COMPUTATIONS FOR NOISE BARRIER PRIORITY NUMBERS:

1. Residential neighborhood.

Assume that before abatement treatment there are four homes exposed to a Leq noise level of 65 dBA, ten homes at 67 dBA, and three homes at 69 dBA. Since the usage factor is one, the average number of people per home is three, and the noise abatement criteria for residential land use is 67 dBA, the computation is as follows:

$$12 \times 2 \left(\frac{65-67}{10}\right) + 30 \times 2 \left(\frac{67-67}{10}\right) + 9 \times 2 \left(\frac{69-67}{10}\right) = 12 \times .870 + 30 \times 1 + 9 \times 1.149 = 50.78$$

This is the "Before" impact. Assume that after construction of a noise barrier there are eight homes at 63 dBA, six homes at 60 dBA, and three homes at 67 dBA. The after impact is as follows:

$$24 \times 2 \left(\frac{63-67}{10}\right) + 18 \times 2 \left(\frac{60-67}{10}\right) + 9 \times 2 \left(\frac{67-67}{10}\right) = 24 \times .758 + 18 \times .615 + 9 \times 1 = 38.26$$

This is the "After" impact. With an estimated noise barrier cost of \$102,000, the priority number of this site is:

$$\frac{50.78 - 38.26}{102} = \frac{12.51}{102} = .123$$

2. Church

Assume 100 members and the church is exposed to 68 dBA before noise walls have been constructed. Since the usage factor is .11 for a church and the noise abatement criteria is 67 dBA, the computation is as follows:

100 x .11 x 2
$$\frac{68 - 67}{10}$$
) = 11 x 1.072 = 11 .8

This is the "Before" impact. Assume that the noise barrier reduced the exposure to 57 dBA. The "After" impact is as follows:

$$100 \times .11 \times 2 \left(\frac{57 - 67}{10}\right) = 11 \times .5$$

With an estimated noise barrier cost of \$20,000, the priority number is:

$$(\frac{11.8 - 5.50}{20}) = .315$$

447.01	Introduction
447.02	Applicable Statutes and Regulations
447.03	Policy Guidance
447.04	Interagency Agreements
447.05	Technical Guidance
447.06	Permits and Approvals
447.07	Non-Road Requirements
447.08	Exhibits

Key to Icons

1

Web site.*



Interagency agreement.

447.01 Introduction

This chapter contains policies and procedures for dealing with hazardous or problem materials encountered or potentially encountered in property WSDOT owns, manages, plans to sell, or plans to purchase. See Section 620.08 and Section 720.04(9) for procedures related to using, storing, and transporting hazardous materials or cleaning up hazardous materials spilled during construction or maintenance. Stringent federal and state environmental laws and regulations expose WSDOT to full responsibility for cleanup and proper disposal of hazardous materials, whether the original source is from WSDOT activities, from a tenant, or inherited when property is acquired. WSDOT has assumed a leading role in dealing with hazardous materials associated with transportation project development. The extraordinary costs incurred with liability for hazardous materials make it imperative that WSDOT aggressively seek to reduce exposure to liability.

Identifying hazardous materials early in the project development process has many advantages:

- Provides increased safety by minimizing potential dangers to WSDOT other
 personnel and the environment arising from exposure to and release of hazardous
 chemicals.
- Reduces the likelihood of project redesign, delay, or termination and attendant costs.
- Reduces the possibility and costs of litigation against WSDOT during both design and construction.
- Avoids the adverse publicity associated with owners of contaminated property.

WSDOT practice is to conduct thorough, legally defensible investigations for identifying potentially contaminated property; develop and maintain good document files; and conduct all appropriate inquiry as early in the project development process as possible. It is essential that the extent and risk of liability be identified before

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

property acquisition. **Table 447-1** summarizes actions to minimize liability throughout the process.

Table 447-1: Important Phases in the WSDOT Transportation Decision-Making Process Where Liability May be Minimized (Highway Projects)

Phase	Recommended Procedures	Options if Problems Identified
Transportation Planning	Screening for major hazardous materials	Design around contaminated property.
(See Part 2)	issues such as Superfund sites.	Secure cleanup by current owner prior to purchase
		Negotiate performance bonds, indemnifications, etc.,
		to ensure property owner financial responsibility.
Project Scoping and	Environmental Review Summary	Same as above.
Programming (See Part 3)	identifies possible presence of hazardous materials.	
Design and Environmental	Conduct Initial Site Assessment.	Deleversiset until site is already up by the responsible
Design and Environmental Review	Conduct Preliminary Site Assessment.	Delay project until site is cleaned up by the responsible parties.
(Sec. 447.05)	Evaluate feasibility of alternative	Proceed to design, incorporating avoidance or necessary
	concepts.	WSDOT cleanup actions.
	·	Identify other liable parties for their input on cleanups
		Revise location decision/terminate project.
		Proceed to design, incorporating avoidance or necessary
		WSDOT cleanup actions.
		Delay project until site is cleaned up by the responsible parties.
		Proceed to ROW appraisal and acquisition.
Environmental Permitting	Conduct detailed hazardous materials	Revise location decision/terminate project.
and PS&E	site investigation.	Negotiate performance bonds, indemnifications, etc., to
(See Part 5)	Include special provisions in purchase	ensure property owner financial responsibility.
	agreements.	Delay project until site is cleaned up by the responsible parties.
		Cleanup by highway agency after acquisition.
Construction	Establish hazardous materials	Revise location decision/terminate project.
(See Part 6)	procedures for construction contractors.	Delay project until site is cleaned up by the responsible
	Implement notification procedures.	parties.
	Require the SPCC Plan.	Cleanup by highway agency.
Maintenance and Operations	Cleanup site monitoring.	Monitor groundwater.
(See Part 7)		
Property Management	Conduct hazardous materials audits of	Delay maintenance or other activity until site is cleaned up by
(See Part 8)	all excess property.	responsible parties.
	Negotiate protective leases.	Cleanup by highway agency.

(1) Summary of Requirements

Exhibit 447-1 illustrates the process of hazardous materials discovery, investigation, and reporting during each stage of the project – from planning to project definition, development, construction, maintenance, and surplus property disposal. This section describes requirements during project development and refers to other parts of this manual for detail on other phases.

Two parallel and overlapping processes are described: (1) environmental documentation (discipline studies in support of an EIS or EA), and (2) hazardous materials investigations, which may be done independently or in support of

environmental documentation. Hazardous materials investigations should be done at a corridor level, beginning with Geographic Information System (GIS) screening at the planning stage, and/or at a site-specific level. Site-specific investigations should be conducted to progressively greater levels of detail in an Initial Site Assessment (ISA), Preliminary Site Investigation (PSI), and Detailed Site Investigation (DSI).

Hazardous materials investigations should be done prior to property acquisition, for property management of potentially contaminated sites, and to characterize contaminated media prior to construction (see Section 620.08). WSDOT general practice is to avoid property with hazardous materials potential. When acquiring such property is not avoidable, site assessments, investigations, and remediation shall be conducted in a manner that creates the least potential for WSDOT liability.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

AST Aboveground Storage Tank

BTEX Benzene, toluene, ethylbenzene, and xylenes

DEHP Di(2-ethylhexyl) phthalate

HAZWOPER Hazardous Waste Operations and Emergency Response

SPCC Spill Prevention, Control, and Countermeasures

SWPPP Stormwater Pollution Prevention Plan
TCLP Toxicity characteristic leaching procedure

(3) Glossary

Many terms are commonly used to describe different types of problem materials that require special handling and disposal when encountered at construction sites. "Hazardous materials" is a common term for all types of contaminated or hazardous media, including dangerous waste, hazardous waste, toxic waste, problem waste, and hazardous substances. Definitions of these terms from state and federal statutes are given below, and the interrelationships among them are shown in **Figure 447-1**. See **Appendix B** for a general glossary of terms used in the EPM.

Dangerous Waste – Solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous, or extremely hazardous or mixed waste. Dangerous waste includes all federal hazardous waste, plus certain wastes exhibiting specific characteristics based on toxicity and persistence.

Hazardous Material – A generic term for any media that contains organic or inorganic constituents considered toxic to humans or the environment. This term covers dangerous waste, problem waste, solid waste, and hazardous substances.

HAZARDOUS MATERIAL **SOLID WASTE HAZARDOUS DANGEROUS WASTE** NON-CONTAMINATED **PROBLEM WASTE SUBSTANCES** WASTE · Contaminated soil, Organics sediment, sludge, Wood debris Inorganics or liquid removed Glass **HAZARDOUS** STATE-DEFINED during cleanup efforts. Metal WASTE WASTE Contaminated Toxic construction debris: Persistent - Asbestoscontaining **PETROLEUM** materials **PRODUCTS** - Lead paint **CHARACTERISTIC** MIXED WASTE LISTED Gasoline - PCBs WASTE WASTE Radioactive/ - Diesel oil Mercury Generated Reactive hazardous - Lube oil from a Corrosive waste - Transformer oil particular mixture Ignitable process Toxic (TCLP) Discarded - Lead paint PCBs - Others High Level of Contamination Low

Figure 447-1: Summary Diagram of Definitions Used to Describe Hazardous Materials

Hazardous Substance – Hazardous substances designated in 40 CFR 116 pursuant to Section 311 of the Clean Water Act include any materials that pose a threat to public health or the environment. Typical hazardous substances have one or more of the following characteristics: toxicity, corrosivity, ignitability, explosivity, and chemical reactivity. Federal regulation of hazardous substances excludes petroleum, crude oil, natural gas, natural gas liquids or synthetic gas usable for fuel. State regulation of hazardous substances includes petroleum products, which are addressed by the Model Toxics Control Act (MTCA). Federally-designated hazardous substances are listed in 40 CFR 116.4, Table 116.4A, and can be accessed online at:



http://www.gpoaccess.gov/cfr/retrieve.html

Hazardous Waste – Solid wastes designated in 40 CFR Part 261 and regulated as hazardous and/or mixed waste by the USEPA. Mixed waste includes both hazardous and radioactive components; waste that is solely radioactive is not regulated as hazardous waste. Hazardous waste includes specific listed waste that is generated from particular processes or activities or exhibits certain reactive, corrosive, toxic, or ignitable characteristics. Hazardous waste is also regulated by the Washington State Department of Ecology (Ecology) as Dangerous Waste.

Problem Waste – Pursuant to WAC 173-350 (as amended in March 2005), problem wastes are defined as soil, sediment, sludge and liquids (groundwater, surface water, decontamination water, etc.) that are removed during the cleanup of a remedial action site, a dangerous waste site closure, or other cleanup efforts and actions that contain hazardous substances but are not designated as dangerous waste pursuant to WAC 173-303. Examples of the type of waste streams that may be disposed under this definition include:

- Contaminated soil, sludge, groundwater, surface water, and construction demolition debris containing any combination of the following compounds: petroleum hydrocarbons, volatile and semi-volatile organic compounds, polynuclear aromatic hydrocarbons, polychlorinated biphenyls, heavy metals, herbicides, and/or pesticides.
- Contaminated dredge spoils (sediments) resulting from the dredging of surface
 waters of the state where contaminants are present in the dredge spoils at
 concentrations not suitable for open water disposal and the dredge spoils are not
 dangerous wastes and are not regulated by Section 404 of the Clean Water Act.
- Materials containing asbestos.

Solid Waste – State regulations define solid waste as all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, problem wastes as defined above, and recyclable materials. Federal regulations define solid waste as any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, and agricultural operations and from community activities. Solid waste includes hazardous and problem wastes.

447.02 **Applicable Statutes and Regulations**

This section lists the primary statutes and regulations applicable to hazardous materials issues. See Appendix D for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in Section 447.06.

Federal and state legislation and regulations related to hazardous materials can be found via WSDOT's home page:



http://www.wsdot.wa.gov/

Click on Environmental, then Hazardous Materials, then Documents.

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/default.htm#docs

Or:

Click on Search, then Site Index, then H, then Highways and Local Programs, then Engineering Services More>>, then Environmental Legislation, then look under Solid/Hazardous Waste for USC and RCW.

Or by direct link:



http://www.wsdot.wa.gov/TA/Operations/Environmental/EnvironLeg.htm

(1) Federal

National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to hazardous materials are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see Chapter 410 and Chapter 411.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 103, also known as "Superfund," is a remedial statute that created the legal framework for identifying parties liable for hazardous waste contamination and requiring them to take responsibility for cleanup operations. Under this statute a person or agency is required to provide notification of releases or potential releases of hazardous materials. CERCLA also created the USEPA ranking system and the National Priorities List (NPL). CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA), which introduced more stringent and detailed guidelines for remediation, as well as more complex liability issues. It also defined and provided for the now common defenses against liability for potentially responsible parties. Superfund is the name of the account held by USEPA to provide funding for hazardous waste site cleanups where the potentially responsible party

or person (PRP) cannot be identified or does not have the funds available to conduct the cleanup.

(c) Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is a preventive statute, which provides requirements for the treatment, storage, and disposal of hazardous waste. The provisions in RCRA are often referred to as the "cradle to grave" liability concept. Under RCRA, USEPA provides the definitions and methods of identifying and classifying hazardous wastes. This legislation also defines who generates hazardous waste that requires USEPA identification numbers and manifests to transport hazardous waste. In 1984, RCRA was amended by the Hazardous and Solid Waste Amendments (HSWA), which greatly expanded its initial scope. In the amendments, Congress prohibited land disposal of certain wastes and created treatment standards for such wastes. RCRA Subtitle I 40 (CFR 280, 281, 282) establishes requirements for ownership, operation, maintenance, and closure of underground storage tanks, and Subpart M (Air) (40 CFR 61) defines national asbestos emissions standards.

(d) Occupational Safety and Health Act

The Occupational Safety and Health Act (OSHA) establishes requirements for site safety procedures, worker training, and worker safety and health standards for employees engaged in work related to hazardous materials. Regulations adopted under this act include the Hazardous Waste Operations and Emergency Response, 29 CFR 1910. This regulation requires specific levels of annual training for everyone working with hazardous wastes and for certain levels of supervised on-site experience.

(e) Clean Water Act

The Clean Water Act (CWA), 33 USC Section 1251 et seq. (formally known as the Water Pollution Control Act), provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from other than permitted sources, and authorizes cleanup, injunctive, and cost-recovery powers where an imminent hazard is caused by pollution. Other provisions prohibit the discharge of oil and other hazardous substances; impose criminal penalty for failure to notify the appropriate authorities of such discharges; and provide for citizen suits.

(f) Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), 42 USC Section 300(f) et seq., provides broad administrative and legal authority to protect public drinking water systems. Primary enforcement authority is given to the states. It applies when any contaminant, defined broadly as "any physical, chemical, biological, or radiological substance or matter" is present in, or about to enter, a public drinking water system. See USC Title 42, Chapter 6A, Subchapter XII for provisions on safety of public water systems.

(g) Clean Air Act

The Clean Air Act (CAA), 42 USC Section 7901 et seq., provides federal authority to regulate all stationary and non-stationary (e.g., motor vehicle) sources of air pollution. Under Section 112 of the Act, USEPA is empowered to promulgate uniform national standards for hazardous air pollutants. Hazardous air pollutants are defined as those likely to cause an increase in mortality, serious irreversible illness, or incapacitating reversible illness. While nonhazardous air pollutants are regulated with some discretion, hazardous air pollutant standards are strictly enforced.

(h) Toxic Substances Control Act

The Toxic Substances Control Act (TSCA), 15 USC Sections 2601-2629, regulates the manufacture, processing, and commercial distribution of chemical substances and mixtures capable of causing an adverse reaction to health or the environment. Certain hazardous substances, such as polychlorinated biphenols (PCBs), are regulated under TSCA.

(i) Endangered Species Act

The Endangered Species Act (ESA) of 1973, 16 USC 1531-1543 aims to conserve species and ecosystems and allow recovery of threatened and endangered species. Section 7 of the ESA requires each federal agency to ensure its actions which authorize, permit, or fund a project do not jeopardize the continued existence of any threatened or endangered species or their habitat. The ESA specifically prohibits discharge of hazardous materials to the environment in a way that affects threatened or endangered species or their habitat. Damage to habitat is considered a "taking" whether the habitat is currently in use, or may be in use in the future. For details, see Chapter 431, Chapter 436, and Chapter 437.

(2) State

Washington State laws and regulations often contain more stringent requirements than their federal counterparts. For activities in Washington, these state laws and regulations take precedence over all other laws and regulations.

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to hazardous materials are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Dangerous Waste Regulations

Dangerous Waste Regulations, WAC 173-303, implement RCRA and the Hazardous Waste Management Act, RCW 70-105. These regulations, considerably more comprehensive than RCRA, provide for waste identification procedures unique to Washington State. The regulations define generator, transportation, storage, and disposal requirements,

including forms and rules related to manifesting and transporting hazardous waste. (see **Section 447.06**, Permits and Approvals).

(c) Dangerous Waste – Land Treatment – Standards for Cadmium

WAC 173-303-655 contains land treatment standards for owners or operators who treat or dispose of dangerous waste. Specifically, WAC 173-303-655(5)(iv)(b) identifies certain requirements for high levels of cadmium. Most important to WSDOT is the requirement to notify future property owners by a stipulation in the land record or property deed that because the property is contaminated with high levels of cadmium, food chain crops must not be grown on the property.

(d) Model Toxics Control Act Cleanup Regulation

The Model Toxics Control Act Cleanup Regulation, WAC 173-340, implements the Model Toxics Control Act, RCW 70.105D. Several administrative rules in this regulation concern WSDOT. These include strict requirements for site discovery and reporting, site assessments, and state hazardous site lists. Any hazardous substance released to the environment must be reported to the Department of Ecology (Ecology) within 90 days of discovery. Most important, the regulation defines standard methods used to assess whether a site is contaminated or clean.

WSDOT and Ecology general roles and responsibilities are clarified by a written implementing agreement (see Section 447.04).

(e) Standards for Solid Waste Handling

Minimum Functional Standards for Solid Waste Handling are contained in WAC 173-350, which implements the Solid Waste Management Act, RCW 70.95. Since this legislation assigns solid waste management responsibility to local governments, WSDOT encounters a wide variety of rules and procedures for disposal of solid and problem wastes.

(f) Underground Storage Tanks

The RCRA Underground Storage Tank (UST) Program is implemented through WAC 173-360. Most important to WSDOT is the very short (24-hour) reporting requirement for leaks and the release investigation requirements imposed on operators and owners of regulated tanks. Tanks not required to be registered have a 90-day reporting requirement. A related requirement is the Uniform Fire Code 79-2.1.7.2.3 (WAC 51-34-7902.1.7.2.3). This regulation requires that USTs not in service for less than one year must be temporarily closed in place and that tanks not in service for more than one year must be either permanently closed in place or removed. The removal of USTs requires permits and must be performed by a licensed Washington State UST Site Assessor. Under no circumstances should an unlicensed individual remove a UST.

(g) Sediment Management Standards

Sediment Management Standards, WAC 173-204, implements marine sediment quality and cleanup standards similar to those contained in the MTCA. This regulation imposes a number of unique requirements that impact WSDOT activities, particularly those of Washington State Ferries

and other transportation projects in or near coastal zones and sediment impact zones. Special sampling and laboratory analysis protocols complicate site assessments when the Sediment Management Standards apply.

(h) Water Quality Standards

Pollution of state waters is controlled by two administrative regulations that implement RCW 90.48, Water Pollution Control Act. WAC 173-201 A, sets water quality standards for fresh and marine surface water and establishes criteria for toxic substances, pH, dissolved oxygen, and aesthetic values. WAC 173-200 contains similar regulations for groundwater, with special emphasis on radionuclides and carcinogens. (See Chapter 431 and Chapter 433.)

(i) Occupational Health Standards

WAC 296-62, contains occupational safety and health standards managed by the Department of Labor and Industries (L&I). Part P and Part R, Hazardous Waste Operations and Emergency Response (HAZWOPER), contain the state regulations that implement OSHA Standards (29 CFR 1910.120). These rules cover operations at known hazardous sites and initial investigations of sites identified by the government, which are conducted before the presence or absence of hazardous substances has been ascertained. They apply to the majority of site assessments conducted by WSDOT. This regulation contains rules on site assessments and control, training, protective equipment, and emergency response.

(j) Air Quality Standards

Air quality in Washington State is regulated under the federal Clean Air Act, RCW 70.94, and RCW 70.120 (motor vehicle emissions). Certain types of activities and emissions such as fugitive dust from construction sites, outdoor burning, and release of volatile organic compounds from soil remediation sites, are regulated either by a local clean air agency or an Ecology regional office, depending on the county. Contact information for local air authorities in Washington is online at:

http://www.ecy.wa.gov/programs/air/local.html

(3) Federal and State – Lead-Based Paint

A number of federal and state statutes and regulations apply specifically to WSDOT projects involving work with lead-based paint, most often those that include renovation or demolition of buildings or bridges (see Section 447.05(7)(c)).

(a) Environmental Health Issues

The federal RCRA, CAA, and CWA prohibit the release of lead into the environment. The MTCA also provides for cleanup standards in the event of a release. Washington's dangerous waste regulations (WAC 173-303) define tracking and disposal requirements and establish liability and ownership for hazardous wastes. See Section 540.24 for procedures on obtaining a WAD number using the Form 2.

(b) Worker Safety

In accordance with various sections of WAC 296-62 and 296-155, the Washington Department of Labor and Industries (L&I) enforces occupational safety requirements to protect workers from exposure to lead during work-related activities. In general, these standards cover worker right to know (hazard communication), training, personal protective equipment, medical surveillance, and work methodologies.

(c) Real Estate Services Property Management

Transportation projects also must comply with the Professional Workforce requirements under TSCA Title IV. The most pertinent is Section 406, which requires that owners of properties provide renters and purchasers with a USEPA pamphlet when that property either contains or has the potential to contain lead-based paint. This requirement is also linked to Title X of the Housing and Community Development Act of 1992, Section 1018. This section requires disclosure of known or potential location of lead-based paint in residential properties. It does not require testing or removal of lead-based paints.

(4) Local Regulations

In addition to federal and state regulations, local government regulations may also apply when addressing disposal of hazardous materials from WSDOT sites. Local health authorities regulate disposal of solid waste to landfills under WAC 173-350. For example, the King County Board of Health regulates some problem wastes through local grading permits and the Tacoma Pierce County Health Department has the authority to administer portions of MTCA.

Another regulation delegated to local governments is the Uniform Fire Code, under which the fire chief or fire marshal establishes the requirements or procedures for decommissioning USTs.

(5) Liability and Highway Project Development

Under current state and federal hazardous waste cleanup statutes, liability is strict, joint, several, and retroactive. This means that all former, current, and future property owners are liable for contaminated property. If WSDOT acquires contaminated property, it can be held liable for any cleanup regardless of the "degree of guilt." The fact that WSDOT can be connected to a contaminated waste site can establish potential liability. If two or more parties are involved, either could be held responsible for the entire cost of cleanup. WSDOT can also be held liable if it was a prior owner; thus, selling land does not protect the department from liability.

WSDOT liability is not limited to remediation costs. Significant common law awards for damages associated with liability are frequent, and where willful misconduct or negligence is involved there is no limit to liability. Consequently, WSDOT must continuously defend itself against liability, and minimize responsibility for hazardous wastes in all stages of highway project development.

WSDOT can also incur liability because of the acts or omissions of state employees. Generally, if a state employee's actions are "in good faith" and "within the scope of that person's official duties," the Attorney General's Office

would represent that employee in any action against the employee, and the state would satisfy any judgment against the employee. However, criminal convictions, as well as civil fines, can and have been obtained against individuals whose actions were willful or grossly negligent. Sovereign immunity afforded the government does not attach to individual government employees to immunize them against prosecution for their criminal acts. An educated employee is the best defense against the agency's criminal liability.

Current laws give WSDOT some limited protection against liability, as described below:

• Cleanup liability. WSDOT policy encourages timely removal of abandoned USTs and contamination encountered on its property without Ecology assistance or approval. These "independent cleanups" are allowed under MTCA (Section 447.02(3)(b)) without an administrative agreement or order in place. A WSDOT managed "independent cleanup" generally accelerates remedial actions and is far less costly than the lengthy process of establishing formal agreements with Ecology, such as Agreed Orders and Consent Decrees. In addition, timely removal reduces the risk of contaminant migration, third party lawsuits, and the potential for WSDOT to encounter unanticipated construction problems. After cleanup has been completed, WSDOT must report the independent cleanup to Ecology within 90 days.

WSDOT may seek certification from Ecology that the cleanup was adequate in the form of a "No Further Action" letter. Ecology requires a fee to review the cleanup and upon approval will issue the No Further Action letter, which provides assurance that Ecology will not require additional cleanup work in the future based on known site conditions.

After performing an independent cleanup, WSDOT may seek cost recovery from parties who may be potentially liable; however successful cost recovery is much less certain without an order or consent decree.

- Third party defense. This defense applies if WSDOT can show that the contamination was solely the result of an act by someone other than an employee or agent of WSDOT or a person involved in a contractual relationship with WSDOT, and that WSDOT took due precautions against foreseeable acts by others and the foreseeable consequences of those acts. The due care concept implies that WSDOT conducted reasonable inquiry and acted with reasonable diligence to prevent the release or spread of contamination.
- Innocent landowner defense. This defense under MTCA may apply if WSDOT acquires property after disposal of hazardous substances on the property and WSDOT did not know nor had no reason to know about the hazardous materials. To consider this defense against liability, WSDOT must clearly demonstrate that all reasonable inquiry had been undertaken to discover, investigate, and characterize the hazardous substance and, once discovered, that due care was exercised to prevent the release or spread of contamination. Under CERCLA, the acquisition of property under the state's eminent domain power, by purchase or condemnation, creates an innocent landowner defense regardless of the state's knowledge of the contamination. However, the state must still show that any hazardous substances were handled with due care.

WSDOT takes the following measures to manage potential liability risk:

- If necessary, WSDOT performs reasonable inquiry by conducting environmental site assessments, as appropriate, prior to property acquisition.
- When USTs and/or contamination are identified prior to property acquisition, WSDOT uses performance bonds, indemnifications and other tools to minimize agency costs and liability related to site remediation.

In spite of using the above two sets of tools, WSDOT sometimes discovers unanticipated contamination on property it owns. Often, past owners/operators cannot be identified for cost recovery. However, where a past owner/operator is a larger, still-solvent oil company, WSDOT has been successful in soliciting participation in funding and implementing the remediation. WSDOT has been especially successful in recovering costs when early participation is solicited in remedial design.

Defenses against liability involve demonstrating that all reasonable inquiry was accomplished. Reasonable inquiry is important throughout project development, and helps in establishing litigation defense. When WSDOT acquires property, it automatically assumes liability and responsibility for cleanup. It is imperative, therefore, that the presence of hazardous materials be identified as early in project planning as possible, and certainly before property acquisition. The importance of early identification cannot be overemphasized. This defense can be accomplished through early site investigation.

447.03 Policy Guidance

The Transportation Commission's Policy Catalog contains a specific policy on use of hazardous substances: Policy 6.3.8 states: "Reduce the potential adverse effects that transportation, storage, application, and disposal of hazardous substances can have on surface and groundwater, fish and wildlife populations and habitat, and air quality. Reduce, and eliminate where practical, the reliance of the state transportation system on environmentally hazardous substances utilized in the construction and maintenance of transportation facilities; ensure the adoption of best management practices in handling hazardous substances for transportation purposes." The policy and action strategies are available at the WSDOT Library.

447.04 Interagency Agreements

(1) Implementing Agreement on Hazardous Waste Management

This agreement between Ecology and WSDOT concerns hazardous waste management and reduction, site remediation, and regulatory compliance. The agencies agree to cooperate in carrying out their statutory responsibilities to meet state transportation requirements and protect public health and safety and the natural environment. The agreement sets forth procedures for each agency to follow in reaching its goals and objectives. The agreement is online via WSDOT's home page:



http://www.wsdot.wa.gov/

Click on Environmental, then Hazardous Materials, then Documents and then Hazardous Material Documents and Publications.

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/haz_docpubs.htm



Implementing Agreement between the Department of Ecology and the Department of Transportation Concerning Hazardous Waste Management (April 1993).

(2) Water Quality Implementing Agreements

The February 1998 Implementing Agreement between WSDOT and Ecology on compliance with surface water quality standards, provides guidance on meeting water quality requirements on bridge construction and maintenance. The agreement is being updated to include water quality guidance on other types of construction, namely concrete and asphalt grinding. (See Section 431.04 for details.)

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals. It defines the elements needed to increase compliance for WSDOT and WSDOT contractors (See Section 610.03).

Both agreements are online via WSDOT's home page:



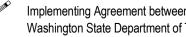
http://www.wsdot.wa.gov/

Click on Environmental, then Compliance Branch, then Construction of Projects in State Waters MOA, then Water Quality Implementing Agreement between WSDOT and Ecology (Interagency Agreements).

Or by direct link:



http://www.wsdot.wa.gov/environment/Programmatics/docs/impagfin.pdf



Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards (February 1998).



Compliance Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards (November 5, 2004).

447.05 **Technical Guidance**

Two parallel and overlapping processes are described in this section: environmental documentation (discipline studies in support of an EIS or EA) and hazardous materials investigations. See Exhibit 447-1 for an illustration of the relationships between these processes. Discipline studies are done during development of a new transportation project. Hazardous materials investigations may be done for property acquisition, property management of potentially contaminated sites, or to characterize contaminated media prior to construction (see Section 620.08). Hazardous materials investigations may be done independently or in support of environmental documentation.

Hazardous materials investigations may be done at a corridor level, beginning with GIS screening at the planning stage, and/or at a site-specific level. Site specific

investigations may be conducted to progressively greater levels of detail in an Initial Site Assessment (ISA), Preliminary Site Investigation (PSI), and Detailed Site Investigation (DSI).

Procedures for WSDOT discipline studies are described first, followed by procedures for an ISA, PSI, and DSI. These are each separate reports, but the hazardous materials investigations may be done concurrently with a discipline study and the same information may be used in both reports.

(1) General Guidance

Information on WSDOT's Hazardous Materials Program, including contacts, site investigation procedures, contacts and consultants, training opportunities, documents and links, is online at WSDOT's home page:



http://www.wsdot.wa.gov/

Click on Site Index, then E, then Environmental Services Office, then Hazardous Materials.

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/default.htm

(a) Terminology

FHWA, WSDOT, USEPA, and the real estate industry use different terminology to describe the sequential steps in Hazardous Materials Assessments that relate directly to timing and decision making in the transportation project development process. **Table 447-2** summarizes this terminology.

Table 447-2:
Terminology for Screening/Evaluating
Sites for Hazardous Materials

FHWA/WSDOT	USEPA/Ecology	Real Estate Industry/Banks
Initial Site Assessment (ISA)	Remedial Site Evaluation Preliminary Assessment/Initial Investigation	Phase I
Preliminary Site Investigation (PSI)	Site Inspection/Initial Investigation complete	Phase II
Detailed Site Investigation/Hazardous Waste Management Plan (DSI/HWMP)	Remedial Investigation/Feasibility Study (RI/FS)/Same	Phase III

The guidelines in this section describe the procedures and requirements for the following hazardous materials management practices:

- Assessing the potential for discovering hazardous materials and the methods for identifying such hazardous materials in the planning and project development process and on properties owned and managed by WSDOT.
- Preparing complete and legally defensible site investigation documentation.

- Handling and disposing of sampling wastes generated during preliminary and detailed site investigations.
- Evaluating and managing the hazardous materials potential in special problem areas such as underground storage tanks (USTs), asbestos abatement, and lead-based paint.

(b) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available databases include CERCLA (Superfund) sites, RCRA sites, and Toxics Cleanup Program sites. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(c) FHWA Guidance

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including specifically hazardous waste sites in the vicinity of a proposed project. During early planning, the location of any permitted or nonregulated hazardous waste sites should be identified and locations shown on a map in relationship to the alternatives under consideration. If a known or potential hazardous waste site is affected by an alternative, information about the site, the potential involvement, impacts and public health concerns of the affected alternative(s), and the proposed mitigation measures to eliminate or minimize impacts or public health concerns should be discussed in the draft EIS. If the preferred alternative impacts a known or potential hazardous waste site, the final EIS should address and resolve the issues raised by the public and government agencies. For details, see FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

In addition, FHWA's online Environmental Guidebook contains documents on hazardous waste, including Supplemental Hazardous Waste Guidance (January 1997), Hazardous Wastes in Highway Rights-of-Way (March 1994), and Interim Guidance: Hazardous Waste Sites Affecting Highway Project Development (August 1988). Available via the FHWA home page:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Index, and then Hazardous Waste and Brownfields.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/v1ch7.htm

(2) Corridor Study Plan Preparation

A corridor study should essentially mirror the requirements for a Phase I or ISA investigation. At minimum, a corridor study should include data from the Hazardous Material layer of WSDOT's GIS Workbench and/or an environmental records search. See Section 220.03 for more on corridor study plans.

(3) Discipline Report

The Hazardous Materials Discipline Report is one of several such reports prepared to support EISs, EAs, or SEPA checklists. A hazardous materials discipline study should be completed for any project that requires the acquisition of large portions of new right of way. The study must be thorough enough to provide the data necessary to recognize and assess the hazardous materials impacts of a proposed project. Hazardous materials investigations (ISAs, PSIs, and DSIs) may be used to document the discipline report.

The current version of the Hazardous Materials Discipline Report checklist is maintained online at WSDOT's home page:



http://www.wsdot.wa.gov/

Click on Environmental, Hazardous Materials, then Site Investigations & Services, then variety of services, and then Hazardous Material Discipline Studies (HMDS).

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/ haz_siteguide.htm#Hazardous_Materials_Discipline_Study

The decision process for preparing a discipline report is illustrated in **Exhibit 447-2**.

A discipline study is broad in scope, and identifies which properties require more detailed investigation. It focuses on the history of properties along the right of way, particularly those with industrial, commercial, or waste disposal activities. Because unknown contamination associated with historical activities can become a major liability issue and/or cause major cost overruns and delays, historical reviews must be thorough. Research sources vary depending on availability but often include aerial photography, business directories, Sanborn Insurance maps,

published local histories, published theses, historical societies and museums, and interviews. Current information is usually obtained through regulatory environmental database lists. However, just listing the sites contained on these lists is not sufficient for the report. The report should include the extent of the known problem, status of enforcement actions, and a summary of impacts to the transportation project. This information is necessary to assess route alignment options, cleanup and mitigation costs, and prepare property acquisition plans.

Land uses that involve any of the operations, processes, or activities like those listed in **Table 447-3** are likely to generate hazardous materials and to have chemical or fuel storage facilities on site.

Table 447-3: Example Land Uses Likely to Generate Hazardous Materials

Analytical laboratory operations.	Manufacture, refinishing, or stripping of
Battery manufacturing, rebuilding, or recycling.	furniture or wood products.
Building and excavation of structures and roads.	Metal finishing, refinishing, and etching
Building and repair of boats.	(auto body, printed circuit board
Chemical and petroleum product storage	manufacturing, jewelry fabrication).
facilities (both above and under-ground tanks	Metal galvanizing.
and flammable storage rooms).	Nursery and greenhouse operations.
Chemical manufacture, formulation, or	Operation or repair of printing and reproduction
processing.	equipment.
Chemical treatment of lawns, gardens,	Paint formulation and mixing.
yards, or provision of other landscape and	Photographic processing and printing.
tree services.	Pressure treating or preserving wood products.
Cosmetic manufacturing or processing.	Product distribution, consolidation, and
Drum, barrel, and tank reconditioning.	shipping operations.
Dry cleaning and laundry services.	Production and repair of shoes, including hide
Electroplating and other metal manufacturing	tanning for leather.
and fabricating operations.	Provision of home, industrial, or commercial
Fueling, repair, and maintenance of motor	pest control.
vehicles (automobiles, aircraft, trucks,	Recycling facilities.
construction equipment, RVs).	Schools, auditoriums, hotels, and other
Home, garden, pool, or agricultural supply	facilities with large heating requirements.
manufacturing.	Scrap metal and junk yard operations.
Landfills.	Solvent recycling.
Leasing or renting of vehicles, maintaining fleet	Textile manufacturing (including fabric dying
operations, renting equipment.	and finishing).
Manufacture, formulation, or processing of	Warehouse operations.
pesticides or agricultural products or chemicals.	Waste or spent product incineration.

Report writers should understand the requirements and objectives for hazardous materials discipline studies in order to prepare comprehensive contract bids and to avoid lengthy delays in rewrite efforts. The requirements below are organized by report section headings. In addition, writers and reviewers of Hazardous Materials Discipline Reports should reference the checklist.

(a) Introduction

The introduction should clearly establish the parameters that will be followed in the report; i.e., what is being studied and what study methods will be employed. There should also be a brief discussion tying the report

to the project objectives and alternatives. Ensure that the study boundaries are consistent with the project, any defined alignments, discipline study checklist, and ASTM standards as appropriate.

Study areas may be defined by any number of methods, from similar land uses to project segments, to alignments. Where possible, these study areas should match or easily transpose into any project areas developed for the EIS. A brief windshield survey of the project will often make defining study areas easier.

(b) Studies and Coordination

Identify all the resources that were researched for the study and describe how they were used to identify and evaluate sites to be listed. Sections 3.2 and 3.3 of the discipline study checklist give examples of commonly used resources, but this is not to be considered a complete list. The similarity of these resources to those used in the ASTM guidelines for conducting an Initial Site Assessment (ISA) (Phase I) is noteworthy. ASTM provides a set standard for conducting "reasonable inquiry" into specific site investigations.

Although the research expected for a discipline study is similar in nature to that of an ISA, the investigation is much more flexible and not constrained to rigid rules. The investigation's level of detail can vary considerably depending on the complexity and size of the project, severity of potential contaminants, and the need for specific detail to assess impacts. This level of detail and a flexible approach to conducting research is consistent with AASHTO guidelines.

The studies and coordination section includes a list of sites (and only those sites) that the project will impact and that possess potential for involvement with contaminants. Section 3.4 of the Discipline Report checklist requires the preparer to validate the lists of suspected contaminated sites, so sites that will not be impacted are eliminated from further consideration. Some writers may prefer to include the list of all the sites identified in the initial research as well as a final list prepared after validation. This large list is usually attached as an appendix.

The Federal Highway Administration (FHWA) supplemented its guidance for hazardous materials on January 16, 1997. In this supplemental guidance, FHWA described sites that could be dealt with in a relatively predictable manner and sites that could be considered substantially contaminated. For preparation of Hazardous Materials Discipline Reports, the following definitions are to be used:

Reasonably Predictable Sites. Sites where the nature of potential
contamination is known based on existing investigation data, or
where it can be reasonably predicted based on observations of the
site, and/or experience at similar sites, and/or best engineering
judgment. Reasonably predictable sites are typically small to
medium in size, the potential contaminants are not extremely toxic
or difficult to treat, and probable remediation approaches are
straightforward.

Examples of sites generally classified as "reasonably predictable" are gas stations, auto repair shops, most underground storage tanks (USTs), leaking underground storage (LUSTs), above ground storage tanks (ASTs), small manufacturing operations, and buildings with asbestos and/or materials that contain lead-based paint.

Substantially Contaminated Sites – Sites which will create a major liability for WSDOT either in construction liability or by virtue of acquiring all or a portion of the site. If the site has undergone a detailed investigation and a feasibility study, the impacts and remediation costs may have already been predicted. Nonetheless, the site will be identified as substantially contaminated because of its substantial impact or liability.

Other sites are considered substantially contaminated sites because they are not reasonably predictable. In general, these will be sites that possess a potential for substantial soil, water, and/or sediment contamination, and/or the information necessary to predict remedial costs is lacking, and the contaminants are persistent and/or expensive to manage. The site may be contaminated over a large area with a single contaminant or over a smaller area with multiple contaminants. Substantially contaminated sites are typically large and/or have large volumes of contaminated materials, and/or have a long history of industrial or commercial use.

Examples of sites that could be classified as "substantially contaminated" include wood products facilities, wood treating operations, metal plating facilities, large bulk petroleum facilities, refineries, hazardous waste treatment facilities, or other sites that use or used large amounts of contaminating materials.

(c) Affected Environment

This section should include three separate discussions: land use, physical environment, and a study area summary. Many of the impacts and mitigation considerations in Sections V and VI of the checklist are predicated upon knowledge and assessment of the land use and physical environment. These two discussions should give a comprehensive accounting of the present land use, its evolution over time, critical areas if any, consideration of likely contaminants including their complexity and distribution, and issues of cleaning up contaminants in the existing environment. The types and distribution of at risk populations should also be addressed.

The requirements for discussing the physical environment are straightforward and are presented in Section 4.2 of the Hazardous Materials Discipline Report checklist. The primary consideration for discussing the physical environment is the effect on contaminants, their distribution, and migration potential.

The discussion of study areas should contain details only of the sites in the final list developed for Studies and Coordination. These are the sites that will be impacted by the project. Detailing other sites is superfluous to the needs of the report. The manner in which this discussion is organized is up to the writer; it should be logical and recognizably related to the study areas and/or project segments discussed in the Introduction. This section of the discipline study should clearly identify the presence and extent of known and suspected contaminants, results of prior cleanup activities, and enforcement actions.

(d) Impacts

Preparing a comprehensive discussion of the impacts of contaminated sites on the proposed project requires an assessment beyond mere repetition of the obvious existence of contaminants. The writer should not repeat the details from the Affected Environment section. At this point what is needed is a thoughtful identification and explanation of the impacts. Further, writing this section requires some knowledge and consideration of the project construction lanes, design, and techniques. Although detailed design plans will most likely not be available, considerable information about the need for bridge work, pier construction, cut and fill, realignments, and property acquisition needs will be available.

When discussing construction impacts, keep in mind that this is a transportation construction project and not a simple property transfer. Consideration should be given to such issues as changes in migration pathways, impacts on groundwater, worker safety, public health, consent decrees and enforcement orders, and regulatory impacts, especially local requirements. Quite often the impacts of generating contaminated construction soil and water wastes are neglected, as are worker and public health and safety. See **Chapter 480** for information on secondary and cumulative impacts. Operational impacts would occur as a result of the daily operation of the project once it is completed. Operational impacts should be discussed with secondary and cumulative impacts.

This section of the report contains recommendations for further investigations such as ISA, PSI, and DSI. Recommending investigations of a substantial number of sites may indicate that the report was not properly researched. Very few, if any, full ISAs should be recommended, since that type of research was conducted to create the list of sites (Studies and Coordination section) impacted by the project. It may be reasonable, in limited circumstances, to recommend some ISA work; for instance, to confirm the location and size of USTs.

Invasive testing through a PSI should be recommended only where it is necessary to confirm the existence and kind of contamination present in substantially contaminated sites without adequate data.

DSI recommendations may be appropriate for sites if that level of detail would be necessary to negotiate cleanup liability, develop construction bid items, and prepare health and safety plans for construction workers.

(e) Mitigation

This is another section of the report where the preparer is expected to demonstrate professional knowledge and initiative, and go beyond obvious generalities. The intent of this section is to describe the potential mitigation for impacts identified in the previous section. Each identified impact must be addressed, whether or not a mitigation option is available. There should not be a discussion for an impact that was not previously identified in the impacts section.

Measures presented in this section are site and project specific; therefore, no set standards can be created. In general, the section should address at least the following issues:

- All contamination known or suspected to exist and be impacted by the project, through construction or property acquisition, must be addressed.
- Mitigation measures should consider innovative remediation measures and all applicable regulatory constraints. Early coordination with regulatory agencies, property owners, and local jurisdiction may also open up opportunities to mitigate environmental impacts.

The next area to be addressed is federal, state, and local regulations. Numerous permits and variances could cause considerable cost overruns and delays if neglected, and these should be identified. Measures to mitigate worker and public health and safety are often neglected. Such issues can easily be a major environmental concern.

The suggestions presented here should not be considered all inclusive. The Hazardous Materials Discipline Report checklist includes several other specific topics that may be discussed if they are pertinent to the project.

Estimates of the cleanup costs must be prepared for all alternatives. FHWA expects that every effort will be made to estimate cost liabilities. Lack of professionally developed cleanup cost estimates is a major cause for rejection of EIS documents. Because of the probability factors involved in preparing hazardous materials cleanup estimates, the costs should be prepared as the "most likely" case. These costs should reflect the most prudent and likely remediation method and any reasonable mitigation recommendations presented in this section.

(4) Initial Site Assessment (ISA)

The purpose of an ISA is to conduct all reasonable inquiry into specific parcels of land that may be contaminated and to assess impacts to WSDOT liability, design, and construction. All ISAs conducted by WSDOT are to follow the investigative procedures established by the American Society for Testing and Materials in ASTM Standard E-1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The discussion of impacts and mitigation, however, is in addition to the ASTM. The ISA may be prepared independently or in support of a discipline study being done for environmental documentation.

The Initial Site Assessment Checklist guides the researcher through the assessment process and helps identify the records and documentation that should be included. Using this checklist alone is not sufficient; each item in the checklist must be documented in a report. Project offices should also keep completed files with documents related to the assessment not incorporated in the final report. The actual amount of documentation will vary depending on the complexity of the project and the past and current land uses. **Exhibit 447-3** provides guidelines for contents of documentation files. The ISA Checklist and recommended table of contents and format is maintained on WSDOT's home page:

1

http://www.wsdot.wa.gov/

Click on Environmental, Hazardous Materials, then Site Investigations & Services, then variety of services, and then Initial Site Assessment.

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/haz_siteguide.htm#Initial_Site_Assessment_ISA_

(a) Initial Site Assessment Process

Essentially, the ISA involves reviewing historic and current land uses with the intent of identifying whether there is a potential for contamination. This level of inquiry may be sufficient to assess the impacts to the project. It is not intended, however, to identify the extent of an identified problem. Other objectives of an ISA include:

- Protecting WSDOT from liability that may be incurred by unknowingly acquiring previously contaminated property.
- Assessing the need for sampling to confirm whether or not hazardous material is present.
- Establishing defenses available to WSDOT if hazardous material is discovered later.
- Beginning the site appraisal process and establishing a baseline condition for excess property.
- Assisting in the selection of specific project alternatives.

Since Regional Offices are most familiar with their respective areas and the details of a particular highway project, each region is encouraged to develop the staff and expertise to conduct ISAs. Assessments must be completed by an environmental professional in order to satisfy one of the legal elements of reasonable inquiry. An environmental degree is not necessarily a prerequisite to be considered an environmental professional. Work experience and continuing education can provide the requisite background. Regions wishing to qualify personnel should work closely with the WSDOT ESO to design a training program.

Because an ISA usually involves off-site records research, it can often be performed without having to enter a site and risk exposure to potentially hazardous situations.

The ISA is a detailed assessment of specific properties. Any property that may involve hazardous materials in any manner throughout its history should be subjected to a complete ISA. Land uses that involve any of the operations, processes, or activities listed in **Table 447-3** are likely to generate hazardous materials and to have chemical or fuel storage facilities on site.

A complete ISA consists of three major elements:

- Records review.
- Site reconnaissance.
- Interviews with government officials and property owners/occupants.
- Several conditions constrain the scope of an ISA. The assessment
 does not include testing or sampling of any materials. Furthermore,
 it is site specific, in that it relates to a specific parcel. Also,
 appropriate inquiry is not exhaustive; there is a point where the cost
 and/or time expended to gather information outweighs its value. No
 site assessment can wholly eliminate uncertainty regarding the
 potential for hazardous environmental conditions.

(b) Records Review

The purpose of a records review is to obtain information that will help identify hazardous environmental conditions. Because of the possible impact of migrating hazardous substances from surrounding properties, the records review should include a minimum search distance of one mile from the parcel under review. Documents reviewed should be reasonably available public or private records, obtainable at a reasonable cost and time, and should not require extraordinary analysis of complex or irrelevant data.

Standard document sources may include some or all of those listed below.

- Federal NPL site list
- Federal CERCLA list
- Federal RCRA lists
- Ecology General Files
- Ecology Confirmed and Suspected Contaminated Sites Report
- Ecology Hazardous Sites list
- Ecology LUST list
- Ecology UST list
- Local sources
 - Environmental health departments
 - Fire departments

- Planning departments
- Regional pollution/water quality agencies
- Libraries and museums

Federal information can be obtained from USEPA Region 10, and Washington State data can be obtained from Ecology. Note that Ecology has most federal records, so it is best to begin there. Local sources are unique to each region and may be extensive. Regional WSDOT offices may have their own list of sources. Some site lists can be accessed from WSDOT's home page:

http://www.wsdot.wa.gov/

Click on Environmental, then Hazardous Materials, and then Documents.

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/default.htm#docs

Review physical setting documents, which provide information about the geology, hydrogeology, hydrology, and topography of a site. This information is important when conditions are such that hazardous substances are likely to migrate onto or from a parcel. A required physical setting source is a current US Geological Survey (USGS) 7.5-Minute Topographic Map. Recommended sources include soil maps from the Natural Resources Conservation Service, and USGS or state Geologic Survey groundwater and geology maps. Washington State Department of Natural Resources (WDNR) has an extensive natural resources library and Washington State Department of Fish and Wildlife (WDFW) has aerial photos of many areas.

Historical use information is an important data source for assessing the potential for hazardous materials. These sources are numerous and those selected for review must, in the professional opinion of the reviewer, relate directly to identifying the use, storage, or generation of hazardous materials. Researching historic land uses prior to 1940 is not usually necessary, unless there is compelling evidence that major contamination occurred before then. Two outstanding sources for historic land use assessment are historic USGS Topographic Maps and aerial photography. Historic topographic maps are widely available at various government offices. Older WSDOT right-of-way plans often reveal potentially contaminated historic sites.

The WSDOT Geographic Services Branch provides extensive historical photography of Washington State, particularly areas containing rights of way. Local sources of data are surprisingly informative. Use fire insurance maps such as Sanborn, and directories such as Polk Directories, Kroll and Metsker Atlases, and various business directories, to identify past land uses of concern. Do not overlook local government records such as property tax files, zoning records, land title records, and fire department records. (However, these local sources cannot be the sole historical source consulted.)

(c) Site Reconnaissance

The purpose of a site reconnaissance is to observe a parcel, and any structures on the property, for recognized hazardous environmental conditions. Temporary easement (right-of-entry) may be required (Section 447.05(9)). Every effort should be made to examine the site physically. However, if access cannot be reasonably obtained or if a physical or health hazard may be present, observe the site from adjacent public properties. This procedure applies only to exterior observations.

Assessing interior conditions (asbestos and lead paint) is addressed below (Section 447.05(7)). A complete photographic record, written description, and maps of the property, to the extent practical, are essential for the documentation files. General site setting observations should include the following:

- Current use Identify, in as much detail as possible, any current use
 likely to involve the use, treatment, storage, or disposal of hazardous
 substances or petroleum products. Verify that markings on manholes
 and well head lids are correct. They may lead to dry wells or vaults.
- Past use Note and describe structures, certain layouts, or equipment, which may indicate past uses of concern.
- *Current uses of adjoining property* Describe adjoining property uses to the extent that they present a possible migration impact.
- Past uses of adjoining property Describe recognized past
 hazardous environmental conditions, which may indicate migration
 potential of contaminants. Also, past uses of other property may help
 identify past uses of the property in question, as certain types of
 businesses are frequently co-located.
- Above ground and underground storage tanks Note any evidence of storage tanks, vents, or access ways. Patches in pavement can indicate former locations of tanks or fuel islands.
- Containers Identify any containers that contain or might contain
 hazardous substances or petroleum products. Include the
 approximate quantities involved, types of containers, and storage
 conditions noted. Do NOT open or disturb any containers that are in
 poor condition or where labeling is absent or unclear as to the
 contents.
- Dry wells, water wells, and septic systems Note anything related to wastewater or other liquid discharges (including storm water), or any drainage into a ditch, drain, or stream on or adjacent to the property. Describe all wells observed, especially injection wells, and indications of septic tanks or cesspools. Also indicate the location of dry wells. Lids to any of these may have incorrect markings, so the investigator should inquire whenever the contents are suspect.
- Asbestos and lead Note any buildings constructed before 1980;
 they are presumed to contain asbestos and/or lead based paint.

- **PCBs** Describe electrical or hydraulic equipment known to contain or likely to contain PCBs. Fluorescent light ballasts need not be noted if the structure was built after 1977.
- Stains Describe in detail the visual characteristics and extent of stained soils or pavements. Note whether an odor is present.
- *Odors and liquids* Identify strong, pungent, or noxious odors and their sources. Describe standing water, pools, or sumps containing known or unknown liquid.
- **Vegetation** Absence of vegetation, or areas of stressed vegetation other than those due to insufficient water, often indicate improper disposal of chemicals or overuse of pesticides. Document any observations.

The Site Reconnaissance Checklist and guidance information is maintained online at WSDOT's home page:



http://www.wsdot.wa.gov/

Click on Environmental, Hazardous Materials, then Site Investigations & Services, then variety of services, and then Site Reconnaissance.

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/ haz siteguide.htm#Recon

Interviews (d)

The objective of conducting interviews is to obtain information about possible hazardous environmental conditions that corroborates information obtained in a records review or site reconnaissance, or that identifies new information. Interviews often lead to the initial discovery of hazardous conditions and should not be underestimated.

Who should be interviewed is a matter of professional judgment. However, make a reasonable attempt to interview major occupants, property owners, neighbors, and key managers for commercial properties. Others who may be able to provide needed information include former employees, museum curators, librarians, local historians, and longtime residents. Although some people dislike being interviewed, most people are willing to provide answers to direct and concise questions. In addition to asking for information on recognized environmental conditions connected with the property, ask whether any of the following documents exist, and whether copies can be obtained within a reasonable time and at reasonable cost.

- Environmental site assessments reports
- Environmental audit reports
- Environmental permits
- Registrations for UST
- Material safety data sheets

- Safety and spill prevention and control plans
- Reports regarding hydrogeologic conditions on the property or surrounding area
- Notices regarding past or current violations from any government agency
- Hazardous material generator notices or reports

Make a reasonable attempt to interview at least one staff member of any of the following local government agencies with jurisdiction over the area in which the property is located:

- Fire department
- Health agency
- Agency responsible for hazardous materials disposal or other environmental matters

(e) Documentation Files

Carefully organize, catalogue, and document all information gathered during an ISA. Documentation is important, because part or all of it may serve as the basis not only for WSDOT decision-making, but also for future legal action. Even where litigation does not seem likely, the high degree of liability and costs associated with hazardous materials involvement increases the probability that litigation may arise in the future.

Since hazardous materials site information would be essential in any future litigation, it should be retained indefinitely. The amount of data and analysis needed for a particular site or project alignment depends upon the likelihood of its acquisition or adoption as the preferred alternative. Regions should carefully assess the risk incurred in deciding to restrict the level of analysis required for any site or project.

Even a small project can generate a large amount of documentation. Project documentation files should contain all the information supporting the conclusions contained in the ISA Report. See Exhibit 447-3 for documentation that WSDOT considers essential for a complete project hazardous materials file. No format is prescribed for a documentation file. Individual regions should follow their current record keeping practices for preparing and tracking documentation files.

An ISA Report is prepared according to ASTM recommendations for format and content, modified for WSDOT reports. Deviations, omissions, and additions in the recommended contents are permissible, if determined appropriate by the environmental professional and supported by the documentation file.

(f) Recommendations

The final step in the process is to summarize the assessment of all material environmental risks which may be associated with the property and recommend what should be done; for example further investigation or site cleanup. The narrative should document compliance with ASTM Standard

E 1527 to qualify for the innocent purchaser defense to CERCLA liability, i.e. the requirement to conduct "all appropriate inquiry into the previous ownership and uses of a property consistent with good commercial or customary practice." Property environmental risk assessment should include not only CERCLA issues of soil and groundwater contamination, but other risks to the environment, or to worker or public health and safety such as asbestos or lead-based paint in building structures, or wetlands which can impact development on a property.

(5) Preliminary Site Investigation (PSI)

A PSI is a limited field investigation and is conducted only when the ISA determines there is a potential hazardous materials risk associated with the site. **Figure 447-2** outlines the process used to determine when a PSI should be performed.

(a) Methodologies

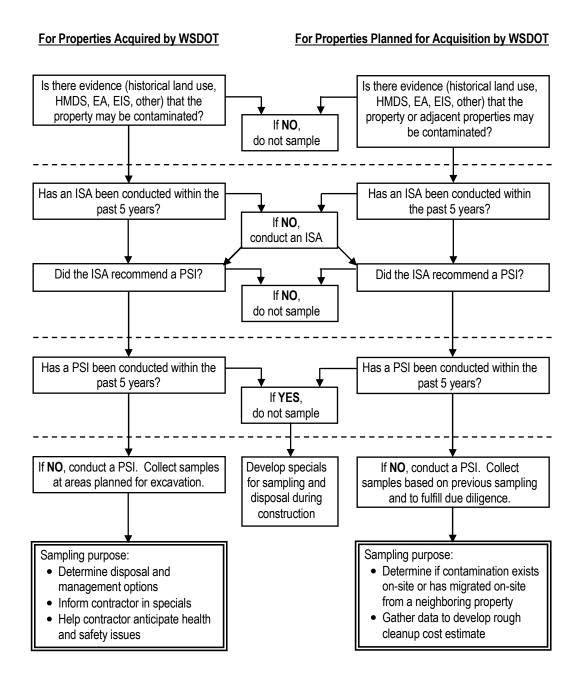
Most PSI methods involve some form of investigative sampling or analysis, especially where hazardous materials are known or suspected to have penetrated below the surface. Investigative technologies are selected based on knowledge of how hazardous materials respond to specific geologic conditions, and on analytical requirements.

Subsurface geophysical testing methods are used to evaluate geologic conditions that create or impact hazardous material migration. These methods include electromagnetics, magnetometer studies, and ground-penetrating radar. They are also capable of determining contamination plumes and locating buried wastes, pipe conduits, and underground storage tanks.

Samples taken for laboratory analysis are the primary means for identifying the presence and extent of contamination hazardous to human health or the environment. A number of techniques are used to take soil and water samples, depending on local conditions and known subsurface geology. Soil samples may be taken from the surface or shallow pits. Deeper samples are obtained using a back hoe or augers, either hand operated or mobile drilling rigs. The latter are the most frequently used and potentially the most expensive. They are also used to obtain deep samples in marine environments. Sediment samples are important when streams or lakes are potentially contaminated. These samples are generally easy to obtain using scoops, specialized coring devices, and specially constructed grab samplers.

Air sampling is frequently part of a PSI. The technique is usually a real time method that not only screens for any existing contamination, but also establishes criteria for worker safety. Worker safety is an important consideration in assessing contamination discovered during construction activities. Direct reading instruments, such as photoionization detectors and soil gas probes, are used to take air samples.

Figure 447-2: Pre-Construction Sampling Decision Guide



Selection of analytical methods and proper sample handling techniques are critical to a successful PSI. Laboratory analysis must be performed by Ecology-certified laboratories. A variety of laboratory analyses are available. Most methods are selected based on the specific objective of the PSI, although many are dictated by specific provisions of regulatory documents. Improper or incomplete sample or analysis planning may invalidate sampling results or make the results legally indefensible. Proper handling of samples is also crucial to obtaining usable and defensible data, and includes selection of correct sample containers, proper storage and transportation, consideration of holding times, and following strict chain-of-custody procedures.

(b) Reports

An ISA sufficiently detailed to identify the possibility of contamination will normally be required before a PSI is undertaken. An abbreviated ISA can be conducted if the site history is known or obvious and the suspected contaminants are well understood. The report prepared for a PSI depends on the nature of the project and the findings of the ISA. For instance, in the case of a service station, information contained in an ISA should be referenced and not repeated in a PSI report.

Regions reviewing PSI reports prepared by WSDOT ESO personnel or an environmental contractor should expect to find the following information:

- Discussion of the physical environment and its relationship to the potential types of contamination, its influence on where contamination may be found, and how it impacts the extent of contamination migration.
- Selection of sampling techniques, the rationale for the type of sampling, and a sampling plan.
- Discussion of the laboratory analysis performed.
- Conclusions and recommendations, which should include identification of any contamination found, its extent, impact on human health and the environment, and a remediation strategy.

Since a PSI involves limited field sampling, the conclusions and remediation strategy recommendations are not an "end all." The contamination may require extensive sampling, and perhaps long-term monitoring. The remedial strategy formulated at this time can serve as no more than a first guess. However, Regional Offices should expect sufficient detail to make a property acquisition or design modification decision from the information contained in a PSI report.

(6) Detailed Site Investigation (DSI)

A DSI generally includes conducting a thorough investigation of a site and preparing a remediation plan. The DSI may be prepared independently or in support of a discipline study being done for environmental documentation, and may also be needed during the construction phase (see Section 620.08). A DSI can be extensive, time consuming, and expensive. Consequently, in WSDOT a DSI is conducted only when the following conditions are met:

- The existence of hazardous materials on the project site has been confirmed and the PSI indicates the need for more detailed sampling and analysis, and
- A decision has been made to proceed with the property acquisition, and
- A site analysis and cleanup is not being performed by a responsible party
- other than WSDOT.

Or:

- Hazardous material conditions are discovered in the project right of way during construction, and
- There are no alternative construction options.

A DSI includes detailed sampling of the site, analysis of remedial alternatives with estimates of the cleanup costs, and recommendations of which remediation type to use. Generally, WSDOT does not have the resources to conduct a DSI, although there may be circumstances in which the department finds it beneficial to commit the resources to conduct an in-house DSI project. Consult the ESO for assistance in meeting DSI requirements. The ESO has several on-call environmental contractors specifically to conduct DSI and remediation projects.

Field work and laboratory analysis are the major components of a DSI and consequently account for most of the study time and costs. A DSI site characterization provides a sufficiently detailed understanding of the site to allow the subsequent formulation and evaluation of remedial alternatives. DSIs may take months to several years to complete and costs may exceed half a million dollars.

Current guidance on Detailed Site Investigations is maintained on WSDOT's home page:



http://www.wsdot.wa.gov/

Click on Environmental, Hazardous Materials, then Site Investigations & Services, then variety of services, and then Detailed Site Investigation.

Or by direct link:



http://www.wsdot.wa.gov/environment/hazmat/haz_siteguide.htm#Detailed_Site_Investigation_DSI

(7) Requirements for Specific Hazardous Materials

(a) Leaking Underground Storage Tanks (LUSTs)

Petroleum is the most common form of hazardous materials contamination encountered by WSDOT. Although petroleum is not currently defined as a hazardous substance under CERCLA (federal), it is under MTCA (state), and its occurrence is so widespread that numerous state and federal regulations and guidelines have been promulgated to deal with its prevention and cleanup.

The most frequently occurring cause of petroleum contamination is leaking underground storage tanks (LUSTs). LUSTs are commonly found at gas and service stations, along main roadways, arterials, and at intersections. Private underground storage tanks (USTs) such as home heating oil tanks in rural and residential areas and farm fuel tanks are also

common and are not registered with Ecology. Consequently, identification prior to property acquisition is a priority for WSDOT. Removal of USTs requires permits and must be performed by a licensed Washington State UST Site Assessor.

The liability WSDOT can incur from acquiring even a small piece of property contaminated with petroleum makes thorough site assessments necessary. Regions are expected to conduct at least an ISA for all UST sites or property where petroleum products were handled and where complete or partial acquisition is planned.

A full ISA is usually not necessary for service station sites, because there is already cause to suspect contamination. A PSI should be conducted if potential contamination cannot be reasonably ruled out. There are no fixed rules on when a PSI must be conducted. The absence of visual signs does not mean a tank has not leaked. It is not unreasonable to expect some level of PSI for all petroleum sites considered for acquisition.

Unless the petroleum contamination is unusually widespread, or groundwater is contaminated, the cost of remediating a known LUST site or other petroleum site is often a reasonable acquisition risk. In such cases, consult the Attorney General's Office for special provisions to include in purchase agreements.

Until recently, excavation and land disposal of petroleum soils was the norm. Fewer landfills and higher dumping costs, as well as RCRA policies and liability issues, now make land disposal the least desirable method. USEPA encourages treatment remediation as the preferred course of action. Treatment at the site is preferred, because of the added cost and liability in transporting contaminated soil away from the site.

Depending on the type of release and the geologic conditions, petroleum contamination may be managed cost effectively by on-site bioremediation, soil venting, or thermal destruction. For small volumes, off-site treatment may be appropriate. Several companies in the state accept petroleum-contaminated waste, which is thermally remediated or incorporated into asphalt or concrete. The cost for this type of disposal may be less than landfill disposal fees. Ecology is currently updating its guidance for remediation of petroleum-contaminated soils.

(b) Asbestos

Asbestos is a naturally occurring fibrous mineral that was used extensively in residential and commercial buildings. It is rarely used in new construction today. Asbestos was widely used as a commercial product because it is non-combustible, resistant to corrosion, and has a high tensile strength and low electrical conductivity. In residential and commercial buildings constructed before 1981, asbestos is often contained in thermal system insulation, various decorative spray-on texturing and fire-proofing, floor coverings, siding, adhesives, roofing materials, and thousands of other building materials and/or applications.

There are several forms of asbestos, such as actinolite, amphibole, amosite, tremolite, chrysotile, crocidolite, or anthrophyllite. Building materials

containing at least one percent asbestos as determined by polarized light microscopy are considered to be a regulated hazardous material. The *Method for Determination of Asbestos in Bulk Samples* is contained in Appendix A of Subpart F in 40 CFR Part 763.

Asbestos is a known carcinogen and contributor to lung disease. Federal, state, and local regulations govern all aspects of asbestos. Management, removal, and disposal of asbestos requires special training, handling, and permitting. Asbestos regulations are enforced by local air pollution control authorities, Ecology, and most specifically by Labor and Industries (WAC 296-62, Part I-1). Federal guidance about asbestos is found in 40 CFR 61 Subpart M, National Emissions Standards for Asbestos.

In WSDOT projects, asbestos is most commonly found in pre-1985 buildings, and various underground piping and conduits. Demolition of structures or excavation of buried utilities can expose workers and the public to asbestos.

Project Design Considerations – The following considerations shall apply during the design phase of any project that will include demolition or renovation:

- Any project work involving asbestos must be completed by trained and certified individuals.
- All buildings constructed before 1985 should be presumed to contain asbestos unless testing and inspection reveals otherwise.
- If the presence of asbestos is suspected during the ISA or at any point during project design, a survey by a certified asbestos inspector shall be conducted.
- The abatement plan or management plan shall be completed by a certified AHERA Project Designer.

Dependent upon availability, WSDOT's ESO Hazardous Materials Program has an AHERA accredited inspector and can conduct asbestos surveys. Detailed information and instruction for dealing with asbestos is located in the WSDOT *Asbestos Abatement Manual* (M-27-80).

(c) Lead Paint

Lead-based paint poses risks to environmental health and worker safety when disturbed for maintenance, renovation, and demolition of structures including bridges and buildings. Environmental documentation prior to any project should ascertain the existence of lead-based paint and determine if that paint will be disturbed.

Testing for lead-based paint must be conducted by trained and certified personnel or contractors. Testing should be completed as early in the design phase as possible and certainly before advertising a project when the contract includes building demolition or renovation. Lead removal can be included in the primary contract or in a separate contract. WSDOT's ESO Hazardous Materials Program can provide project managers and Real Estate Services with contract specifications and other contracting

assistance. See Section 447.02 for statutes and regulations applicable to lead paint.

Information covering identification, disposal procedures, regulations, and health hazards is available on Ecology's web page:

http://www.ecy.wa.gov/

Click on Programs, then Hazardous Waste and Toxics Reduction, then Demolition Debris Information and then Lead Wastes.

Or by direct link:

http://www.ecy.wa.gov/programs/hwtr/demodebris/pages2/leadmenu.html

Facilities – Especially in pre-1980 buildings, buildings scheduled for demolition should be tested for lead-based paints before beginning work.

Bridges – Almost all WSDOT and county steel structure bridges contain large concentrations of lead paint and other regulated heavy metals, such as zinc. To comply with applicable air, water, and safety and health regulations, these hazardous materials pose significant management challenges as related to construction and maintenance. Because of the rapidly changing policy concerning painting, any questions concerning bridge painting should be directed to the ESO Hazardous Materials Program Manager.

Exposure of hazardous materials to the environment and personnel will occur during bridge paint removal and surface preparation, through contact with spent abrasives, old paint, corrosion products, dust, grease, bird feces, and wastewater. Likely exposure pollutants include lead, chromium, cadmium, arsenic, barium, mercury, selenium, and silver. Even though contractors perform the majority of bridge construction and maintenance, WSDOT is required to be diligent for managing these hazardous materials from "cradle to grave."

Disposal of Lead-Based Paint and Lead-Contaminated Wastes –

WSDOT, as a generator of project hazardous materials, is responsible for overseeing and managing the disposal of project wastes. Lead-based paint poses disposal challenges due to the toxicity of the metal. Disposal options vary depending on the toxicity and lead leachability of the waste (lead TCLP). For example, lead concentrations in the waste materials greater than 5 mg/kg are required to be disposed of at a certified landfill. Lead concentrations less than 5 mg/kg can be disposed of at a non-certified landfill. The difference in the disposal cost is significant when comparing landfills.

Leachability of the lead is reduced when contractors or maintenance personnel use binders such as Blastox in the removal of lead-based paints.

(d) Arsenic- and Lead-Contaminated Soils

In many parts of Washington, soil contains low to moderate levels of arsenic and lead (known as area-wide soil contamination) from three main historical sources: emissions from metal smelters, use of arsenical pesticides, and combustion of leaded gasoline. A task force formed in 2002 by the state departments of Agriculture; Ecology; Health; and Community, Trade, and Economic Development continues to refine the guidance for managing lead- and arsenic-contaminated soils. Up-to-date guidance can be found at the Area-Wide Soil Contamination Project web site:

http://www.ecy.wa.gov/programs/tcp/area_wide/area_wide_hp.html

(8) Disposal Procedures for Waste from Investigative Sampling

This section summarizes the procedures to be followed for management of investigative sampling wastes generated during a PSI or DSI. Disposal of sampling wastes is regulated by numerous federal, state, or local laws and procedures, depending on what the waste is determined to contain. It is the responsibility of the region in which the sampling was conducted to store and dispose of the sampling waste. The ESO will provide the laboratory characterization reports and recommendations for legally disposing of sampling waste.

Sampling wastes may include drilling mud, bore cuttings, purge water from wells, soil, other materials from the collection of samples, and solutions used to decontaminate equipment. Under certain conditions, such sampling wastes may be disposed of on site. The hazardous material specialist or site manager conducting the sampling is responsible for complying with laws that govern onsite waste disposal.

Because of potential public concern and the liability associated with leaving sampling waste in the public right-of-way or at sites accessed with temporary easements, Regional Offices must remove sampling containers from such locations within 24 hours. Sampling waste containers are stored at facilities owned or operated by WSDOT. The ESO recommends that each region establish a limited number of facilities where sampling waste may be stored. This eases the burden of disposal if the sampling waste is determined to be hazardous material as defined by RCRA.

Labeling is of prime importance when dealing with known or suspected contaminated wastes and materials. All containers must have a legible label with the correct information on that label. See the USDOT labeling regulations (49 CFR 173.2).

(a) Non-hazardous Waste Disposal

Most wastes generated by WSDOT are not hazardous and can be properly disposed of in landfills, pit sites, or back onto the property from which they were obtained. Also, sampling waste is not a hazardous waste until positive evidence, based on test results, confirms its characteristics. Consequently, there is no requirement to obtain USEPA/State Site Identification Numbers or prepare shipping manifests to transport sampling waste.

Sampling waste determined not to be hazardous can be disposed of in several ways. Waste without any contaminants can be returned to the site of origin or placed in a WSDOT pit site. Problem wastes, notably

petroleum-contaminated soil and asbestos, may legally be disposed of in a permitted landfill or with one of the many permitted business that accept such waste. Regional Offices are responsible for determining the acceptability of problem wastes for treatment or disposal in their region. The ESO will provide updated information on permitted businesses, their location, fees, and restrictions. Aqueous waste may be poured onto the ground, if contaminant free, or disposed of through a Publicly Owned Treatment Works (POTW). Regions are responsible for complying with the restrictions of their POTW.

(b) Hazardous Waste Disposal

Sampling waste determined to be hazardous must be disposed of by a WSDOT-certified hazardous waste transport contractor. Regional Offices must obtain a USEPA/State Site Identification Number before offering hazardous waste for transport. A few exceptions are permitted for small quantity generators as described in WAC 173-303-070(8). See Section 540.24 for information on obtaining identification numbers. A separate number is necessary for each site from which hazardous waste is shipped. Since Ecology requires annual reports, limiting the number of sites for storing potential hazardous sampling waste will reduce documentation. To ship hazardous wastes, Regional Offices must comply with all administrative and substantive requirements for RCRA wastes in Washington State, including shipping manifests, packaging and transport requirements, and record keeping.

(9) Right-of-Entry Procedures

One of the major issues for conducting environmental site investigations is access to private property for the purpose of sampling. The issue consists of determining whether access is required, then following appropriate guidelines for gaining access. RCW 47.01.170 allows only visual inspections of the property. Washington has no statute allowing collection of samples without the owner's permission. Permission of the property owner is necessary when access is required to conduct invasive testing for a PSI. A unique condition exists when a private property owner refuses a valid WSDOT request for entry. In either case, the assistance of the office of the Attorney General is required.

(a) Reasons for Access

The first step is to determine whether access to potential contaminated property is required to conduct a PSI. Documentation that supports WSDOT's need to access a particular property is essential and will normally be needed if seeking a court order. The recommended form of documentation is an ISA. Following are several objectives that would require WSDOT to enter upon private property.

Routine engineering and surveying – Routine access for purposes such as project design, estimating cost, or setting stakes is permitted under RCW 47.01.170. To demonstrate respect for private property rights and to protect employees from unknown dangers, oral permission from the property owner will be obtained whenever possible. Invasive engineering or testing requires a signed right of

- entry, which can be obtained through the Region Real Estate Services (RES) section.
- Avoiding MTCA strict liability exposure WSDOT becomes liable
 for cleanup costs as a subsequent owner even though it did not cause
 the contamination. WSDOT policy is to sample property that is
 suspected of being contaminated prior to purchase or as part of the
 Real Estate Services negotiation.
- Detecting hazardous substances In order to establish an innocent landowner defense, WSDOT must exercise due care and reasonable precaution (CERCLA, 42 USC 9601 and 9607). Eminent domain condemnation does not protect WSDOT against a third party claim unless adequate investigation, due care, and reasonable precautions have been established. To qualify for this defense, WSDOT must demonstrate that it:
 - Acquired the property after contamination
 - Exercised due care with respect to hazardous substances involved
 - Took reasonable precautions against the consequences of pollution
- Detecting petroleum product contamination and underground storage tanks for RCRA compliance Sites must be investigated to detect petroleum contamination due to liability imposed by MTCA, and the need to remove tanks. This is one of the principal problems encountered by WSDOT and one that has caused the most cleanup liability and costs.
- Complying with federal, state and local laws Examination of sites is required to comply with numerous environmental, natural resource, agricultural, and historic laws. These include NEPA, 4(f), and laws relating to clean air, historic preservation, relocation, wetlands, threatened species, and cultural/archaeological artifacts. Access to the property for inspection must be obtained prior to property acquisition in order to accomplish the letter or intent of these laws.
- Determining project location and scheduling WSDOT must decide whether the costs and delays of contamination cleanup warrant selecting an alternative route. Otherwise WSDOT could be mired in review and investigation procedures that delay construction for years or even prevent proceeding with the project.
- Determining construction site conditions WSDOT must know the
 type of contamination and other conditions likely to be encountered
 during construction and to which its contractors may be exposed.
 WSDOT and its contractors found to have caused or contributed to
 the release or threatened release of a hazardous substance can be
 held liable for that contamination.
- Appraising property Access is required for appraisal purposes.
 Contamination affects the valuation of property and methods selected for cleanup. WSDOT may act as a contracting or

negotiating agent for current owners in some situations. In other cases, the cost of cleanup should be deducted from acquisition cost or money held in escrow for cleanup.

(b) Pre-Access Requirements

The following steps should be taken before requesting a right-of-entry to conduct a PSI:

- Conduct an environmental audit Reviewing public records may reveal that other work was conducted and that regulatory agencies are involved. There is no need for WSDOT to repeat a site investigation. This should have been accomplished in the ISA.
- Determine that the purpose of the proposed site inspection is clearly identified – Legitimate purposes include acquiring property for a transportation project, remediating contamination on the property, project planning, or preparing an Environmental Impact Statement.

(c) Obtaining Right-of-Entry

Procedures for obtaining a right-of-entry are as follows:

- Rights-of-entry are obtained through the Region Real Estate
 Services (RES) section, using the procedures in the *Right of Way*Manual (M26-01) Chapter 6, Easements and Permits. RES will
 obtain title evidence and negotiate and process payments for
 damages. Although condemnation is permissible under the statute,
 WSDOT and the Transportation Commission have taken the
 position that WSDOT will not condemn property to acquire rights of
 entry for environmental testing.
- The Region RES section will need the details of the area to be investigated, what materials are expected to be found, and how long it is going to take. If long term use of the property is needed, RES will determine and negotiate a fair market rental rate to be paid. It is often helpful for the engineer to attend the meeting with the property owner(s) to clarify issues that arise. This is an opportunity for WSDOT to make reciprocal agreements to share the results of any testing on the site.
- Should the owner(s) refuse to allow entry, and it is essential to continue investigation, the Region RES personnel will enlist the assistance of the office of the Attorney General (AG) to obtain a court order. An assistant AG will need an affidavit of negotiation, setting out WSDOT's attempts to obtain permission from the owner and the owner's refusal. Typically, this consists of the RES agent's diary and any engineering notes to the file.

(10) Hazardous Materials Procedures during Construction

See Section 620.08 for procedures on identification, handling, and disposal of hazardous materials during construction. Contractor responsibilities are contained in WSDOT Standard Specifications for ensuring continuity of work

when hazardous materials are encountered on a project site; these are summarized in **Exhibit 620-2**.

(11) Real Estate and Property Management

Real property activities involve hazardous material management issues in two major areas: property acquisition and property management. WSDOT's Real Estate Services plays a major role and is responsible for helping to coordinate a wide variety of hazardous material procedures.

(a) Property Acquisition

The main objective for hazardous materials management in property acquisition is to avoid or minimize liability. Once title to a contaminated site is held by the state, it may be too late to resolve legal problems related to acquisition. Certain protective measures in the acquisition process are required very early in the program. Real Estate Services role includes the following:

- Preparing and negotiating right-of-entry documentation so site testing can proceed in a timely manner.
- Analyzing test results from a fiscal standpoint, and coordinating applicable value estimates to make sure appropriate compensation is offered for property rights acquired.
- Including indemnification language in acquisition documents to make sure WSDOT will not be held liable for any claims related to site cleanup that are not directly attributable to the state's provisions of title.
- Applying appropriate indemnification deposit procedures that withhold compensation to a property owner, so WSDOT does not bear the financial burden for site cleanup when latent contamination is discovered.
- Coordinating asbestos testing for all habitable dwellings or business buildings that are acquired.

(b) Property Management

Although property management presents unique considerations, the ultimate objective is the same as other WSDOT activities, which is to minimize or eliminate liability for hazardous materials. Sites under property management usually were acquired as early possession of a right-of-way. The property may remain vacant or be leased until highway construction begins. Often, property is made available for sale due to changes in highway projects or by becoming "excess" after a project is completed (see **Chapter 820**).

When WSDOT leases property for any reason, it remains liable for contamination caused by the lessee. However, a number of steps should be taken to minimize liability under lease arrangements.

Like any landlord, WSDOT screens all potential tenants to ensure they will be environmentally responsible during occupancy of the property. At a minimum, tenants should be required to describe their type of business and any proposed hazardous waste and hazardous materials handling practices. Property managers should routinely check each prospective tenant's environmental reputation and compliance record.

Although as the property owner WSDOT will not be released from MTCA and CERCLA liability, including indemnification provisions in the lease will protect WSDOT from inheriting responsibility for environmental damages caused by the tenant. This will ensure that WSDOT does not bear the burden of cleanup.

WSDOT regularly monitors a tenant's activities to ensure commitment to maintaining a clean site. A baseline environmental assessment is recommended as soon as a tenant occupies a property. Periodic spot inspections, provided for in the lease, should be conducted. Prior approval must be obtained from WSDOT before any USTs or sumps are installed or removed. Notification before tenants conduct any subsurface investigations should be required, and copies of all environmental reports and inspections should be provided to WSDOT. Before terminating a lease, the property is thoroughly evaluated to ensure hazardous materials, drums, and tanks have been properly removed and disposed.

447.06 Permits and Approvals

Permits and other requirements relating to Hazardous Materials are addressed in Section 540.24, Hazardous Materials Requirements. See also Section 540.25, Other State Approvals, for information on soil boring for geotech studies, sometimes followed by well drilling for monitoring of hazardous waste.

447.07 Non-Road Project Requirements

Ferry terminals may be located in areas containing contaminated sediments. If dredging is required and the sediments are not determined to be suitable for openwater disposal, sediments are disposed of at an upland disposal site.

Additionally, extracted creosote timber piles may require special disposal, though Ecology does not consider them a hazardous waste. Pre-demolition or construction coordination with local landfills is recommended.

No special requirements have been identified for aviation or rail projects.

447.08 Exhibits

Exhibit 447-1 – Hazardous Waste Discovery Process for Transportation Projects.

Exhibit 447-2 – Decision Process for Preparing a Hazardous Materials Discipline Study.

Exhibit 447-3 – Documentation File Content Guidelines.

Hazardous Waste Discovery Process For Transportation Projects

PROGRAM PLANNING AND ENGINEERING PROCESS

HAZARDOUS MATERIALS DISCOVERY PROCESS

Program Planning Hazardous Materials
GIS Data Screening
(Environmental Woolsh and

(Environmental Workbench)

Project Definition and Planning Corridor Screening Level Study

Develop and Analyze Preferred Develop Discipline Study

Alternative (including mitigation cost estimates)

Select and Refine Preferred Alternative

Perform Sampling if Necessary and

Finalize Discipline Study

Refine Project Design and Begin Prepare Draft EIS

Property Acquisition (Refine Mitigation Cost Estimates)

Finalize Design Report Finalize EIS

Refine and Finalize Plans, Specifications,

Support Development of Hazardous
Materials Management Specifications

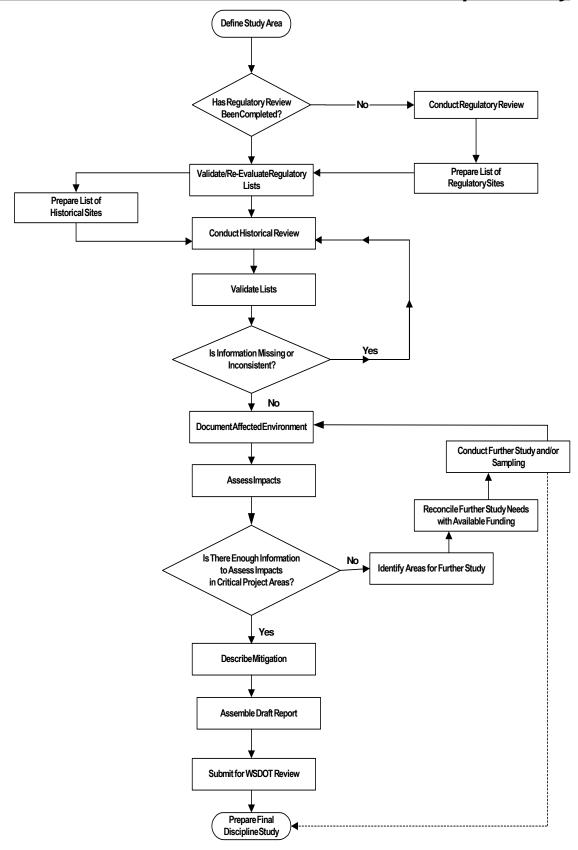
and Estimates as Needed

Conduct Any Necessary Pre-construction Clean-up

Construction Clean-up During Construction and

Hazardous Waste Disposal

Decision Process for Preparing <u>A Hazardous Materials Discipline Study</u>



Documentation File Content Guidelines

Minimum Essential Documents for Hazardous Waste Assessments/Investigations

	ISA		PSI/DSI	
DOCUMENTATION	Required	Recommended	Required	Recommended
Physical				
USGS Topographic Map	✓			1
Aerial photographs		1		✓
Site photographs		·	√	
Soil Conservation map-extracts		1	-	1
Site map	√		√	
Other geology/hydrogeologic maps or reports		✓		✓
Records				
Temporary easements		✓	✓	
Interview records and memorandums		✓		✓
Environmental Reports/Permits - copies or excerpts		✓		✓
Land use/planning/zoning/Health Department permits and reports	✓			✓
Title searches	✓		✓	
State/Federal Environmental registers - memorandum of use	✓			✓
Local records - identity and memorandum of use		✓		
Historical records - identity and memorandum of use		✓		
Investigative				
Sampling plans/site maps			✓	
Field records/notes			✓	
Laboratory analysis and custody records			✓	
References				✓
Contractor reports and correspondence				✓
Correspondence				
WSDOT	✓		✓	
Regulatory agencies	✓		✓	
Court orders/decrees/consent agreements		✓		✓

450 Land Use

450.01 Overview450.02 Overview of Environmental Requirements450.03 Exhibits

450.01 Overview

Land use and transportation are often closely intertwined. Land use may determine the demand for transportation facilities, and transportation projects may help determine land use.

Applicable federal, state, and local land use laws, including any requirements for permits, special studies, environmental impact analyses, and review for consistency with adopted plans, policies, and regulations must be complied with before a project can go into construction.

Chapter 451 through Chapter 459 cover a range of land use topics, listed below.

- 451 Land Use, Land Use Plans, and Growth Management
- 452 Coastal Areas and Shorelines
- 453 Wild and Scenic Rivers
- 454 Farmland and Agriculture
- 455 Public Lands (Section 4(f), and 6(f) and Forests)
- 456 Historic, Cultural, and Archaeological Resources
- 457 Social, Economic, and Relocation
- 458 Environmental Justice
- 459 Visual Impacts

While the emphasis in these chapters is on highway projects, the same or similar requirements apply to ferry, transit, rail, and aviation projects.

450.02 Overview of Environmental Requirements

(1) National Environmental Policy Act (NEPA)

Under NEPA implementation regulations (40 CFR 1508.14), the human environment is defined as "comprehensively including the natural and physical environment and the relationship of people with that environment..." Land use is a major expression of the relationship of people with their physical environment. "When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment." Under 40 CFR 1508.8, aesthetic, historic, cultural, economic, social, and health impacts are among those to be considered. Statutory and regulatory authority is found in:

- NEPA, 42 USC 4321-4347
- CEQ regulations, 40 CFR 1500-1508

FHWA's environmental impact and related procedures are found in:

- 23 CFR 771
- FHWA Technical Advisory 6640.8A

(2) State Environmental Policy Act (SEPA)

SEPA requires analysis of a project's impact on the natural and built environment prior to permitting or construction. The built environment includes topics covered in **Chapter 451** through **Chapter 459**: analysis of land and shoreline use, relationship to existing land use plans and estimated population, housing; aesthetics, light and glare, recreation, historic and cultural preservation, and agricultural crops (WAC 197-11-444).

Under SEPA the relationships between transportation projects and land and shoreline use are analyzed, including consistency with state and local plans such as the Shoreline Management Act and the local Shoreline Master Plan. WSDOT regional staff are responsible for doing the analysis and determining appropriate thresholds, standards, and significant adverse impacts. Because WSDOT is not the land use authority in most cases, regional staff must coordinate the work with the local land use authorities, or in some cases, both local and state authorities.

SEPA implementing regulations are in Chapter 197-11 WAC.

450.03 Exhibits

None.

451.01	Introduction
451.02	Applicable Statutes and Regulations
451.03	Policy Guidance
451.04	Interagency Agreements
451.05	Technical Guidance
451.06	Permits and Approvals
451.07	Non-Road Project Requirements
451.08	Exhibits

Key to Icon



Web site.*

451.01 Introduction

The potential impacts of transportation projects on land uses and land use plans typically are extensively reviewed during project development at local, regional, and state levels. Such review has gained visibility as a result of Washington's Growth Management Act (GMA) and federal mandates such as those applied through the Transportation Equity Act for the 21st Century (TEA-21) and federal grants. These programs have led to increased analysis of projected population, land use, and need for public infrastructure. Local jurisdictions, particularly cities and counties planning under the GMA, have adopted land use policies and capital facilities plans that must be taken into account during development of transportation projects. Most of these policies are in the process of being updated as the comprehensive plans are being updated. The update of comprehensive plans is on a staggered schedule.

(1) Summary of Requirements

The primary requirements for analysis of impacts on land use and land use plans are established in implementing regulations for NEPA, SEPA, and the GMA; the GMA's mandated Essential Public Facilities (EPF) review; and local codes.

NEPA and SEPA processes can be done concurrently; however, GMA mandates, linked to an EPF process, may require an extended timeline. Early coordination with local jurisdictions is essential for several reasons: to identify local conditions that could affect highway operations or future design; to obtain early buy-in and explore possible joint development projects, and to ensure sufficient time for extensive local review. Documentation of comments is essential in the circumstances where WSDOT would file an objection to local changes with the GMA Hearing Boards. The Hearing Boards expect early and continuous involvement that has been well documented.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

CFP Capital Facilities Plan

CTED Washington State Department of Community, Trade, and Economic Development

EPF Essential Public Facilities GMA Growth Management Act

HSS Highways of Statewide Significance

LOS Level of Service

MPO Metropolitan Planning Organization

PSRC Puget Sound Regional Council

RTPO Regional Transportation Planning Organization

(3) Glossary

See Appendix B for a general glossary of terms used in the EPM.

Concurrency – The requirement to have needed infrastructure (e.g. roads, sewers, water systems) in place or planned and funded within six years of permitting and development in the jurisdiction where the development is located. The concurrency process was established through the GMA.

Highways of Statewide Significance – RCW 47.05.022 designates these and sets standards. HSS and other facilities and services of statewide significance are essential public facilities.

Level of Service (LOS) – A tool for identifying the degree of capacity at which a public service or infrastructure operates. The most commonly used is the LOS A-F standard for capacity, volume, and delays at a traffic intersection, F being the worst congestion and delay time period.

Urban Growth Area – The identified boundary that allows for higher density and focused infrastructure development to control growth from "sprawling" into the identified rural and sensitive areas of local jurisdictions.

451.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to land use and growth issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 451.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC 4321 et seq., requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to land use are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see Chapter 410 and Chapter 411.

(2) Growth Management Act (GMA)

The Washington State legislature adopted growth management legislation in 1990 and 1991, and it has adopted subsequent amendments. The Growth Management Act (GMA), RCW 36.70A.070, sets goals to guide planning in the larger, fastest growing counties and cities within those counties, and provides for a regional transportation planning program to be administered by WSDOT. The GMA requires fully planning counties and cities to:

- Adopt countywide planning policies.
- Work together to allocate the projected population within each county.
- Adopt local comprehensive plans, including a transportation element.
- Define urban growth areas and reevaluate every ten years.
- Ensure that development regulations are consistent with comprehensive plans.
- Establish a process for siting essential public facilities, which cannot be precluded.
- Designate natural resource lands (forest, agriculture, and mineral resources).
- Designate critical areas (wetlands, aquifer recharge areas, habitat, and flood prone and geologically hazardous areas).
- Include the best available science when developing policies and development regulations to protect the functions and values of critical areas.
- Give special consideration to conservation or protection measures to preserve or enhance anadromous fisheries.
- Review and revise, if needed, the comprehensive plan and development regulations every seven years to ensure they comply with GMA.

The applicability of these local plans and policies to WSDOT transportation projects is described below in **Section 451.03**. Permits required pursuant to implementing regulations are listed in **Section 451.06**.

The act is available on line at:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=36.70A

(a) GMA Goals

The GMA identifies the following goals to guide counties and cities in developing comprehensive plans and development regulations:

- Preserve historic properties.
- Assure adequate public facilities and services at the time developments are completed (concurrency requirements).
- Provide for citizen participation and coordination between communities to resolve conflicts.
- Protect the environment and enhance the quality of life in Washington State.

- Retain open space, develop recreational opportunities, and increase access to natural resource lands and water.
- Preserve and enhance natural resource-based industries, including timber, agriculture, and fisheries.
- Provide timely and predictable processing of applications for state and local permits.
- Protect private property rights from arbitrary and discriminatory actions, to include just compensation for taking of private property for public use.
- Provide economic development consistent with adopted comprehensive plans; encourage growth in areas of need.
- Provide sufficient affordable housing of a variety of types and densities; preserve existing housing.
- Provide efficient transportation systems based on regional priorities and coordinated county and city plans.
- Reduce conversion of undeveloped land into sprawling development.
- Encourage development in urban areas where adequate public facilities and services exist or can be provided efficiently.

Later legislation added a 14th goal on shoreline management.

All fully planning counties under GMA are required to meet the following requirements.

- All counties are required to designate and protect critical areas and designate and protect natural resource lands. Every seven years local governments are to review their work in these areas to ensure it complies with GMA, including using best available science.
- All cities and counties with comprehensive plans are required to make their development regulations consistent with their comprehensive plans.
- Short plats and subdivisions may be approved only if adequate services are available.
- Any building permit application needs to supply evidence of adequate water supply.

(b) Regional Transportation Planning

The GMA authorizes local governments to create Regional Transportation Planning Organizations (RTPOs) to develop regional transportation plans and to coordinate transportation planning between local governments and the state. (See Chapter 230 for details.)

The act also provides for state grants to RTPOs, administered by WSDOT, and specifies these requirements:

- **Joint Planning** Regional planning processes must be integrated with WSDOT's planning program.
- Coordination between Regions WSDOT's planning program must ensure statewide coordination among the regional transportation plans produced by RTPOs.
- Development of Standards for Regional Transportation Planning

 In coordination with the RTPOs, WSDOT establishes the rules on
 the process and planning activities undertaken by the regional
 transportation planning program. All regionally significant
 transportation projects, whether state or locally funded, must be
 consistent with the adopted regional transportation plan.

WSDOT's GIS Workbench, a GIS interface, includes a data set of RTPOs in Washington, as well as other "Data Provided by Local Agencies", such as land use and land cover data and political and administrative boundaries data. Internal WSDOT users can access these and other data sets through the GIS Workbench. For information on how to access the Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(c) Projects Affecting Multiple Jurisdictions

Many major transportation projects affect multiple jurisdictions that may be concerned about how a project will affect economic development, fiscal resources, environmental resources, land use, and mobility of people and goods. The GMA encourages local governments affected by a major transportation project to consider the range of local, state, and federal requirements, and coordinate planning and regulatory decisions with other affected jurisdictions (RCW 36.70A.420). WSDOT works closely with affected jurisdictions on studies, permits, or other approvals required for major projects.

For counties and cities that are not required to fully plan under GMA, the above requirement does not apply. (See Section 451.03 for requirements applicable to all counties.) WSDOT project managers need to work with all counties and/or cities to review any applicable land use and/or transportation plans.

(3) 1991 Growth Strategies Act

The 1991 Growth Strategies Act (RCW 36.70A (as amended) is an update of the GMA. The Growth Strategies Act has a more direct impact on WSDOT operations, since it requires state agencies to comply with local comprehensive

plans and development regulations. The act defines some state transportation facilities as Essential Public Facilities (EPFs). These facilities can be subject to local conditions established by development regulations. The act requires local governments to develop a process for siting such facilities, and it prohibits local governments from precluding the siting of essential public facilities. Key provisions of the act are summarized below.

(a) State Agency Compliance

The act requires state agencies to comply with local government comprehensive plans and development regulations prepared under the act. In designated Growth Management Areas, WSDOT is only subject to development regulations, including critical area ordinance permits. Within the right-of-way, WSDOT is not subject to building and clearing/grading permits. Outside of the right-of-way, WSDOT is subject to these permits, for example for a building project at a maintenance facility.

(b) Siting of Essential Public Facilities

The act requires local governments to have a process for siting EPFs, including regional and state transportation facilities. The state Office of Financial Management must maintain a list of state EPFs that are required or likely to be built within the next six years. Local governments may not preclude the siting of these facilities. However, WSDOT must coordinate planning activities with local governments and comply with local development regulations.

(c) Growth Management Hearings Board

The legislation created three regional Growth Management Hearings Boards to hear and resolve growth management disputes. WSDOT has access to these boards to challenge a local comprehensive plan or development regulation, and local governments may use the boards to challenge WSDOT actions. However, if WSDOT has not commented on the process during the local jurisdiction's comment period, the agency cannot bring any challenges to the Hearing Boards. Therefore, any comments should be timely and well documented.

(d) State Agency Grants and Loans

According to RCW 43.17.040, state agencies must give preference to local governments that have adopted (or demonstrate substantial progress toward adopting) a comprehensive plan and development regulations as required by RCW 36.70A.040 when they review competing requests from local governments planning under the GMA for grants or loans to finance public facilities. This preference is not required in reviewing those requests and requests from local governments not planning under the GMA. Local comprehensive plans must include a Transportation Element, and countywide planning policies must give direction for siting public capital facilities of a countywide or statewide nature, including transportation facilities (see Section 451.03(2)(a)).

(4) Local Ordinances and Regulations

Many local government land use ordinances and regulations may affect the transportation system and specific projects. These include: zoning ordinances and development regulations, critical areas ordinances, and shoreline management master programs. WSDOT project managers will need to ascertain which such regulations may apply to their project. In cities and counties planning under the GMA, two regulations that may affect the transportation system and projects are summarized below.

(a) Concurrency

The GMA requires local governments to adopt ordinances that prohibit development unless necessary transportation improvements, identified in the Capital Facilities Element, are made "concurrent with" the development. "Concurrent with" is defined as "at the time of or committed to be made within six years." Local governments can devise a system for metering land use development to match their transportation capacity and transportation budget.

Transportation infrastructure identified in the Capital Facility Element is required to serve the community at an acceptable level. Concurrency requirements are identified through the level of service tool. Level of service (LOS) standards for streets and roads are adopted in the local Comprehensive Plan and implemented through development review and SEPA. Highways of statewide significance are excluded from the local concurrency requirements, except in counties comprised entirely of islands.

(b) Development Impact Fees

The GMA authorizes local governments to collect development impact fees to pay for public facilities, including roadways, and many jurisdictions have adopted ordinances imposing traffic or transportation impact fees for development proposals. The GMA requires specific "upfront" planning by the local government to document their adopted LOS standards, and establishes a standard process for collecting fees when a development will cause the LOS to drop below the local standard.

451.03 Policy Guidance

(1) Regional Transportation Plans

All 14 RTPOs in Washington have adopted regional transportation plans that are updated regularly. All WSDOT transportation projects should be consistent with these regional plans.

(2) County and City GMA-Related Plans and Policies

(a) Countywide Planning Policies

To ensure cooperation between neighboring jurisdictions, each county planning under GMA is required to adopt countywide planning policies, formulated with and agreed upon by each of the cities in the county. These policies are the framework of the county's overall growth management strategy. Multi-county planning policies are to be adopted by two or more

counties, each with a population of 450,000 or more, with contiguous urban areas; other counties may voluntarily adopt multi-county policies. This requirement applies to King, Pierce, and Snohomish counties.

Countywide planning policies are required to give direction for siting public capital facilities of a countywide or statewide nature, including transportation facilities and services of statewide significance as defined in RCW 47.06.140. WSDOT regional offices should participate in developing the transportation component of countywide planning policies, since state agencies must adhere to them once they are adopted.

(b) Urban Growth Areas

Counties that plan fully under the GMA must consult with cities and designate urban growth areas within which urban growth is to be contained. The boundary of an urban growth area may differ from the boundary of an urban area as defined by the FHWA in identifying an area to be served by a federally aided transportation project. (Such a project may constitute an essential public facility under the GMA.) Growth boundaries established under these processes may impact how WSDOT plans for improvements. For example, higher levels of access management may be needed in rural areas to discourage growth at urban densities.

(c) Natural Resource Lands and Critical Areas

Counties and cities are required by GMA to designate natural resource lands and critical areas to be protected through their plans, policies, and development regulations. Resource lands are defined as forest, agriculture, and mineral resource lands. Critical areas to be designated are:

- Wetlands
- Aquifer recharge areas
- Fish and wildlife habitat conservation areas
- Frequently flooded areas
- Geologically hazardous areas

Critical areas impacts are closely tied to wetland regulations, flood zone regulations, and other natural habitat area protection regulations. (See Sections 420.02, 432.02, 433.02, 436.02, and 437.02).

(d) Local Comprehensive Plans

Each county and city planning fully under the GMA must adopt a comprehensive plan consistent with countywide planning policies. Comprehensive plans designate urban and rural areas, natural resource lands, and critical areas. Comprehensive plans must include a Capital Facilities Plan (CFP), and the transportation element of the comprehensive plan may include a six- and twenty-year list of transportation and other facilities projects needed to implement the plan.

Local comprehensive plans are required to include the following elements: land use, housing, capital facilities, public utilities, rural areas (counties

only), and transportation. Elements mostly likely to affect transportation planning are:

- Land use element. This element designates the proposed general
 distribution of land use. It must include review of drainage and
 stormwater runoff and provide guidance to mitigate water pollution.
 The land use element provides the basis for infrastructure plans,
 including capital facilities, public utilities, and transportation.
 Environmental information related to designated critical areas may
 be included in this section.
- *Transportation element.* The transportation element must be consistent with the land use element. It must inventory the transportation system, establish level of service (LOS) standards, identify deficiencies, analyze transportation funding, and develop proposals to upgrade deficiencies. The inventory must include stateowned transportation facilities within the city or county boundaries (RCW 36.70A.070 (6)(iii)(a)).
 - The GMA requires that local jurisdictions identify transportation facilities and services of statewide significance in their local plans. The GMA authorizes a regional transportation planning process to improve coordination between local governments and the state.
- Capital facilities element. The capital facilities element is for public facilities, including transportation facilities, with a minimum cost of \$25,000 and expected useful life of at least 10 years. A capital facility element is created through an analysis of the need for additional facility capacity to serve current and future development. The financial part of the Capital Facility Element is a Capital Facility Plan (CFP) showing how facilities will be financed over a six-year time frame. The transportation section of CFP addresses concurrency and levels of service (RCW 36.70A210 (3)(a-h)).

Both the land use and transportation chapters in local comprehensive plans provide direct guidance for new transportation projects. WSDOT project managers should evaluate their project for consistency with countywide planning policies and local comprehensive plans. If a proposed transportation project is inconsistent, WSDOT should consult with the county and/or regional government staff to discuss policy differences and possible resolution of those differences. Under the GMA, state agencies must comply with local comprehensive plans and development regulations (RCW 36.70A.103); likewise local agencies should coordinate with WSDOT.

(3) Planning and Zoning (Jurisdictions Not Planning Fully under the GMA)
Cities and counties in the smaller, slower-growing areas of the state are not required to fully plan under the GMA. These jurisdictions are authorized to regulate land use under RCW 36.70. However, all counties in the state are required to designate and protect critical areas and natural resource lands.

WSDOT staff should familiarize themselves with any comprehensive land use plans, zoning and development regulations, and arterial plans these jurisdictions have adopted.

(4) Other Local Planning Policies

Neighborhood plans, subarea plans, special overlay zones, and downtown plans are among the other local documents that may contain additional policy direction or guidelines for transportation projects. They may require additional studies and/or mitigation, restrict access, require redesigning a road's function and design, require transfer of development rights, or regulate air rights to protect views.

451.04 Interagency Agreements

None. See **Appendix E** for an index of interagency agreements referenced in the EPM.

451.05 Technical Guidance

(1) WSDOT Discipline Report

The checklist in **Exhibit 451-1** is a guide to completing WSDOT's Land Use Discipline Report, which is used to prepare the land use section of Environmental Assessments (EAs), SEPA checklists, or Environmental Impact Statements (EISs). The discipline report should include a review of applicable local and regional land use plans, policies, and ordinances; a description of existing land use and zoning and development trends; potential impacts on land use resulting from the project, and construction impacts. Mitigation measures are normally not applicable.

A Land Use Discipline Report is needed for an EIS project when there is a reasonable probability that the project would have more than a moderate effect on land use in the project area. For example, a Discipline Report would be needed if the project would cause a substantial amount of growth of a particular type in an area where such growth is not planned, or if it would prevent a substantial amount of growth of a particular type in an area where such growth is planned, despite any proposed mitigation. For an EA project, a Land Use Discipline Report is needed when it is determined that the project may have more than a moderate effect on land use but further analysis is needed to establish whether there is a reasonable probability that such an effect will occur. Any rationale for determining that a full Discipline Report is not needed should be documented in a technical memo that is kept in the project file.

(2) FHWA Technical Advisory

FHWA's Technical Advisory T 6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (October 1987) gives guidelines for preparing environmental documents, including specific sections on land use and joint development measures.

Land use sections of EISs, EAs, and Section 4(f) documents should identify current development trends, and consistency of each alternative with relevant regional and local plans for land use, transportation, public facilities, housing, community services, and other areas. Secondary social, economic, and

environmental impacts of development induced by the project should be presented, making a distinction between planned and unplanned growth impacts.

A draft EIS should also identify and discuss joint development projects that could be undertaken by WSDOT in cooperation with a local jurisdiction or private party to preserve or enhance an affected community's social, economic, environmental, and visual values. This discussion may be presented separately or combined with the land use and/or social impacts presentations. The benefits to be derived, those who will benefit (communities, social groups), and the entities responsible for maintaining the measures should be identified (see also Section 457.05).

For details, see the "Land Use Impacts" and "Joint Development" sections of the technical advisory at:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(3) FHWA Environmental Guidebook

FHWA's online Environmental Guidebook contains documents on community impact assessment that may be relevant to land use studies. Available at:



http://environment.fhwa.dot.gov/guidebook/index.htm

Washington State Department of Community, Trade and Economic Development (CTED) (4) CTED staff should be consulted for technical assistance on GMA-related issues. For information about other resources, see the CTED home page:



http://www.cted.wa.gov/

451.06 Permits and Approvals

Permits and approvals relating to Land Use, Land Use Plans, and Growth Management are addressed in the sections referenced below:

Federal

- Section 520.05 Archaeological Resource Protection Permit (federal and tribal lands)
- Section 520.13 Other Federal Approvals (Authorization for Use of Public Lands from Bureau of Land Management or U.S. Fish and Wildlife Service)

Tribal

Section 530.05 – Tribal law (similar to permits and approvals required by counties and cities)

State

- Section 540.16 Aquatic Lands Use Authorization
- Section 540.17 Easement over Public Land

- Section 540.18 Forest Practices Approval
- Section 540.19 Surface Mining Reclamation Permit
- Section 540.20 Survey Monument Removal Permit
- Section 540.22 Archaeological Excavation and Removal Permit

Local

- Section 550.02 Shoreline Permits
- Section 550.03 Floodplain Development Permit
- Section 550.04 Critical Areas Ordinance Compliance
- Section 550.05 Clearing and Grading Ordinances (outside right-of-way)
- Section 550.06 Land Use Permits (outside right-of-way)

451.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, or permits that apply to road systems.

(1) Ferry Facilities

Ferry terminals are often located near areas that provide natural harbors. These harbors can be attractive as sites for private marinas that could interfere with ferry operations. Washington State Ferries prefers to take proactive steps, such as working with local jurisdictions, to minimize the opportunities for private marina development that may pose navigational hazards.

(2) Aviation Facilities

Environmental documents on public-use airports must address land uses that may attract birds and other wildlife, which may create hazards on or near airports. These issues are addressed in the following Federal Aviation Administration (FAA) Advisory Circular: *Hazardous Wildlife Attractants on or Near Airports*, FAA Advisory Circular No. 150/5200-33, (May 1, 1997).

- Section 1 of the advisory circular describes types of hazardous wildlife attractants on or near airports, land use practices that attract wildlife, and siting criteria for airport projects.
- Section 2 provides information on land uses that are incompatible with safe airport operations. These include putrescible waste disposal operations, wastewater treatment facilities, and dredge spoil containment areas.
- Section 3 lists land uses that may be compatible with safe airport
 operations. These include: enclosed waste facilities, recycling centers,
 composting operations, ash disposal, construction and demolition debris
 landfills, water detention or retention ponds, landscaping, golf courses, and
 agricultural crops.
- Section 4 provides guidance on notifying the FAA about hazardous wildlife attractants, including FAA review of proposed land use changes.

The circular is online at FAA's web site:



Click on Regulations and Policies; then Advisory Circulars; then Airports; then 150/5200-33A under "Airport Safety—General".

Or by direct link:

http://www.faa.gov/arp/publications/acs/5200-33A.pdf

451.08 Exhibits

Exhibit 451-1 – Land Use Discipline Report Checklist.



Discipline Report Checklist Land Use

Projec	t Name	:			Job Number:										
Conta	ct Name	e:													
Date I	Receive	d:		D	ate Rev	iewed:	Reviewer:								
(SAT	= Satisf	factory;	INC =	Incom	plete; M	IS = Mi	ssing; N/A = Not Applicable)								
Answ	ers are 1	required	for qu	estions	s which h	nave no	N/A box.								
l.	Studio	es and (Coordi	natior	า										
(Refe	to 40 C	CFR Sec	tion 15	602.16	(c), 40 C	FR 150	6.2(d), and DOT 5610.1C Attachment 1.)								
Revie	ws of ci	ty and c	ounty l	land us	se plans,	arterial	street plans, land use codes, comprehensive ood plans.								
II.	Affect	ted Envi	ironm	ent											
Includ	•	• .					local plans for zoning, land use, recreational, ag the following descriptions or graphics:								
SAT	INC	MIS	N/A												
				A.	-	_	existing land use for the project area and the area influenced by the project.								
				B.		_	existing zoning.								
				C.	Appli	cable la	nd use plans and development trends.								
					1.		al plans or policies - including land use es related to air or water quality impacts.								
					2.	State	plans, if any.								
					3.	_	nal planning agency development and ortation plans.								
					4.	Trans	portation system plans of applicable agencies.								
					5.	Count	y and city plans:								
						a.	Land use plans (include map where available).								
						b.	Recreation area and open space plans.								
						c.	Shoreline master program.								
						d.	Zoning plans.								
	¬ ¬ ¬ e Critical areas														

III.	Impac	ts			
	der land project o		anges c	aused b	y or reasonably foreseeable from increased accessibility or
SAT	INC	MIS	N/A		
				A.	Distribution of development among governing agencies and impact on their public services.
				B.	Distribution of development between cities and suburbs.
				C.	Amount and type of land required.
				D.	Existing zoning and current use of real property to be acquired for right of way.
				E.	Potential for joint or multiple use of right of way for utilities or other purposes, above, below, or beside the traveled lanes of the highway.
				F.	Land use changes caused by changes in noise, air, water, and visual quality.
				G.	Possible conflicts between proposed action and Indian land or other land use plans, policies, and controls (40 CFR Section 1502.16(c)). If there is conflict, describe the extent to which the proposed action will be reconciled with these plans (40 CFR Section 1506.2(d)), and/or reasons for proceeding without full reconciliation (DOT 5610.1C Attachment 1).
				H.	Consistency with adopted transportation and development plans for the area and region.
IV.	Mitiga	ition (N	ormall	y not a	pplicable.)
SAT	INC	MIS	N/A		
				A.	Mitigation measures and commitments to offset adverse impacts (e.g., access changes or controls).
				В.	Mitigation measures considered or available but not included, with reasons why.

Activi	ty Impa		ction of		ection of the project are to be addressed in a "Construction S. Provide the following information, as appropriate, for
SAT	INC	MIS	N/A		
				A.	Under Impacts , consider temporary impacts associated with construction.
				B.	Under Mitigation (normally not applicable):
					1. Mitigation measures and commitments during construction.
					2. Mitigation measures considered or available but not included, with reasons why.
VI.	Sumn	narv			
detail	so that i	•	e includ	ed in tl	onclusions reached. The summary should include enough he EIS with only minor modification.
SAT	INC	MIS	N/A		
				A.	The objectives of the project.
				B.	Current land use patterns.
				C.	Impacts of all alternatives including the no-build alternative.
				D.	Recommended mitigation.
				E.	Comparison of alternatives based on impacts and cost effectiveness of mitigation.
Gener	al Com	ments:			

٧.

Construction Activity Impacts

452.01	Introduction
452.02	Applicable Statutes and Regulations
452.03	Policy Guidance
452.04	Interagency Agreements
452.05	Technical Guidance
452.06	Permits and Approvals
452.07	Non-Road Project Requirements
452.08	Exhibits

Key to Icon



Web site.*

452.01 Introduction

This chapter includes information and requirements for transportation projects in and near coastal zones and shorelines, where a project could add pollutants to waters, increase sedimentation in runoff, harm endangered species habitat, or affect slope stability, coastal currents, or littoral transport of sediment. See related information in Chapter 431 (Water Quality), Chapter 432 (Floodplain), Chapter 436 (Wildlife, Fish, and Vegetation), and Chapter 437 (Wetlands).

(1) Summary of Requirements

Shoreline areas are protected under the State Shoreline Management Act (SMA) and local Shoreline Master Programs (SMP). In areas under federal jurisdiction such as harbors and coastal zones, federal Coastal Zone Management Act (CZMA) regulations apply. In most local jurisdictions, a Joint Aquatic Resources Application (JARPA) form and/or a SEPA checklist provide the basis for identifying shoreline and coastal zone issues and sources of information.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

CBRA	Coastal Barrier Resources Act
CZMA	Coastal Zone Management Act
NOAA	National Oceanic and Atmospheric Administration
OHWM	Ordinary High Water Mark or Line
SMA	Shoreline Management Act
SMP	Shoreline Management Program

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Enforceable Policies – Under the CZMA, legally binding policies (such as constitutional provisions, laws, regulations, land use plans, ordinances, or

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

judicial or administrative decisions) by which a state exerts control over private and public land and water uses and natural resources in the coastal zone.

Shorelines – Land within 200 feet of the ordinary high water mark of waters of the state, including marine waters, rivers, streams, lakes, and reservoirs, and their associated wetlands, floodways, deltas, and floodplains. The Shoreline Management Act (RCW 90.58.030 (2d)) excludes streams with a mean annual flow of 20 cfs or less and lakes smaller than 20 acres (including adjacent wetlands).

Shorelines of Statewide Significance – Shorelines for which there is special interest in preserving the natural characteristics and encouraging and increasing public access.

Substantial Development – Any development of which the total cost, or fair market value, exceeds \$2,500.00, or any development that materially interferes with normal public use of the water or shorelines of the state.

452.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to coast and shorelines issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 452.06**.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on coastal and shoreline areas and resources, and uses thereof, are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see Chapter 410 and Chapter 411.

(b) Clean Water Act

The Water Pollution Control Act (33 USC Section 1251 *et seq.*), better known as the Clean Water Act (CWA), provides for comprehensive federal regulation of all sources of water pollution, including fill or discharges in shoreline waters or wetlands within shorelines of the state. Refer to **Section 431.02** for more information.

(c) Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act, 33 USC 410 *et seq.* requires authorization from the U.S. Army Corps of Engineers (Corps) for construction of any structure in or over any navigable water of the United States, the excavation/dredging or deposition of material in these waters or any obstruction or alteration in a navigable water. A Section 10 permit is required for a structure or work outside the limits defined for navigable waters if it affects the course, location, condition, or capacity of the water body. For information on Section 10 permits, see Section 520.03. Section

9 of the Act requires USCG approval for any bridge over navigable waters; see Section 520.04.

Coastal Barrier Resources Act (d)

The Coastal Barrier Resources Act (CBRA) establishes certain coastal areas to be protected by prohibiting the expenditure of federal funds for new and expanded facilities within designated coastal barrier units. There are no coastal barrier units in Washington.

Coastal Zone Management Act (CZMA) (e)

Congress established the Coastal Zone Management Act (16 USC 1452 et seq.) in 1972 in order to:

- Preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations.
- Encourage and assist the states to develop Coastal Zone Management Programs (CZMPs) that provide for the protection of natural resources and the management of coastal development.
- Encourage the preparation of special area management plans which provide for increased specificity in protecting significant natural resources, reasonable coastal-dependent economic growth, and improved protection of life and property in hazardous areas.

Implementing regulations are at 15 CFR 923-930.

Washington's Coastal Zone Management Program has been approved by the National Oceanic and Atmospheric Administration and is administered by the state Department of Ecology (Ecology). The CZM Program applies to all activities within Washington's 15 coastal counties. Ecology oversees most activities except agriculture and activities related to single-family homes. USEPA approves activities on tribal or federal land.

Under the CZMA, "enforceable policies" means legally binding policies (such as constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions) by which a state exerts control over private and public land and water uses and natural resources in the coastal zone. In Washington, the primary enforceable policies of the CZMA are SEPA, SMA, state Clean Water Act, Clean Air Act, and implementing regulations. Procedures for certifying consistency with these policies are described in **Section 540.03**.

Under the program, cities and counties can develop local management plans that must be approved by Ecology. Ecology gives program overview and support, and local advisory councils offer suggestions to city and county governments. The CZMA is on-line at:

http://www4.law.cornell.edu/uscode/

Click on Title 16, Chapter 33.

Or by direct link:



(2) State and Local

State Environmental Policy Act (a)

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on coastal and shoreline areas and resources, and uses thereof, are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapter 410 and Chapter 411.

(b) Shoreline Management Act (SMA)

Washington's Shoreline Management Act (RCW 90.58), was passed by the Legislature in 1971 and adopted by the public in a 1972 referendum. The SMA's goal is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines."

Ecology's adoption of new shoreline master program (SMP) guidelines in 2003 initiated a new generation of shoreline planning in Washington (Chapter 173-26 WAC). The guidelines were developed as part of a yearlong negotiated settlement that also led to adoption of shoreline legislation (effective July 2003) that established a new schedule for updating local government Shoreline Master Programs. They are accessible online at Ecology's web site:



The new guidelines set a high level of environmental protection but do not specifically direct a local government how to achieve this result. This allows local flexibility, but does not relieve the need for the administration of the master program to meet prescribed performance standards. This approach was designed to provide maximum flexibility to local governments while concurrently requiring specific standards from the state to protect essential ecological functions of the shoreline resources.

http://www.ecy.wa.gov/

For the WAC, click on Publications/Forms, then under Environmental Laws and Rules, click on Index of Rules, then Chapter 173-26 (under Shorelands and Environmental Assistance). For guidelines and other references, click on Programs (on Ecology's home page), then Shorelands and Environmental Assistance.

Or by direct link for WAC 173-26:

http://www.ecy.wa.gov/biblio/wac17326.html

Or by direct link for guidelines and references:

http://www.ecy.wa.gov/programs/sea/shorelan.html

The Act establishes a broad policy giving preference to uses that:

- Protect the quality of water and the natural environment.
- Depend on proximity to the shoreline ("water-dependent" and "water related" uses).
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

The SMA uses a combination of policies, comprehensive planning, and zoning to create, in effect, a special zoning code overlay for shorelines. Under the SMA, each city and county is required to adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic, and environmental needs of the community. Master programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Since shoreline management is a state-legislated activity, WSDOT is subject to these local programs. Decisions regarding approval of shoreline programs may be appealed to the Shoreline Hearings Boards.

The SMA applies to:

- All marine waters.
- Streams with a mean annual flow greater than 20 cubic feet per second.
- Lakes 20 acres or larger.
- Upland areas, called "shorelands," 200 feet landward from the ordinary high water mark (OHWM) of these waters.
- The following areas when they are associated with one of the above:
 - 1. Biological wetlands and river deltas
 - 2. Some or all of the 100-year floodplain including all wetlands within the entire floodplain

The SMA also states that "the interests of all the people shall be paramount in the management of shorelines of statewide significance." Shorelines of statewide significance are those for which there is special interest in preserving the natural characteristics and in encouraging and increasing public access.

Shorelines of Statewide Significance are defined in the SMA (RCW 90.58.030) as:

- Certain areas on the Pacific Coast, Hood Canal, and Puget Sound shorelines.
- Lakes or reservoirs with a surface acreage of 1,000 acres or more.
- Larger rivers (1,000 cubic feet per second or greater for rivers in Western Washington, 200 cubic feet per second and greater east of the Cascade crest).
- Wetlands associated with all the above.

(c) Local Shoreline Master Programs

Local jurisdictions are required to develop a Shoreline Master Program (SMP) to guide compliance with the SMA. In Washington, 205 cities and 38 counties have adopted shoreline master programs. See WAC 173-19 for a complete list of jurisdictions that have adopted SMPs.

Local SMPs are planning and regulatory documents subject to approval by Ecology. Local jurisdictions use the shorelines permitting process as the primary tool for shorelines protection.

SMPs designate shorelines according to the degree of impact by human activity. Most local jurisdictions use the standard designations recommended by Ecology, but may use additional ones. The four standard designations are: (1) urban, (2) rural, (3) natural, and (4) conservancy. Project coordinators must pay close attention to the use regulations to be followed under each designation.

Local governments may modify master programs to reflect changing local circumstances, new information, or improved shoreline management approaches. All changes to SMPs require public involvement. At a minimum, local governments must hold public hearings. Substantial revisions are usually written with help from citizen advisory committees.

SMA guidelines provide details on how local governments can achieve the level of protection required by the SMA. Current SMA requirements and guidelines can be viewed online at:



Click on Programs, then Shorelands and Environmental Assistance, then Shoreline Management.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/shorelan.html

More information on the Shoreline Management Act and local government can be accessed at:

http://www.mrsc.org/Subjects/Environment/shorelin.aspx

452.03 Policy Guidance

(1) Shoreline Master Programs

City and County SMPs include policies to guide development in and adjacent to shorelands. The SMA and other laws require local governments to take into account the SMA and SMP when reviewing proposed development projects for zoning, site plan, subdivision, or other approvals. For this reason, jurisdictions may review plans for consistency with the local SMP and the SMA. Development projects may be conditioned or denied based on shoreline policy.

(2) Other Local Plans and Policies

City and county comprehensive plans and parks and recreation plans may contain policy and planning guidance on shorelines. In addition, local critical areas plans may apply in areas where the shoreline and wetlands are hydrologically connected. These documents should be considered in preparing shorelines sections of environmental documents.

452.04 Interagency Agreements

None specific to shorelines and coastal areas. See **Appendix E** for a complete index to interagency agreements referenced in the EPM.

452.05 Technical Guidance

(1) WSDOT Discipline Report

WSDOT has no formal discipline report for coastal areas and shorelines.

(2) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets include major shorelines, lakes, and rivers. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(3) Ecology Guidance

For information on the SMA, implementing guidelines and permit information, see Ecology's web site:

http://www.ecy.wa.gov/

Click on Programs, then Shorelands and Environmental Assistance, then look under Shoreline Management.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/shorelan.html

(4) FHWA Technical Advisory

Technical Advisory T 6640.8A (October 30, 1987) gives guidance on preparing NEPA and Section 4(f) environmental documents, including sections on coastal barriers and coastal zone impacts. If coastal zones may be impacted by a proposed project and an EIS is required, the draft EIS should: (1) identify direct and indirect impacts to the coastal zone unit(s); (2) discuss the results of early coordination with the state CZM agency or appropriate local agency and the U.S.

Fish and Wildlife Service; and (3) identify any alternative which would require an exception under the Act. For details, see FHWA's web site:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(5) FHWA Environmental Guidebook

FHWA's online Environmental Guidebook contains documents on coastal barrier resources and coastal zone management. Available online at FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Index, then Coastal Zone Management.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/index.htm

(6) Other Guidance

For coastal erosion issues, several references are available:

Washington Coastal Erosion Task Force Report (March 1, 1999), including policy recommendations. Available from Washington Office of Community Development, Growth Management.

The Southwest Washington Coastal Erosion Study has resulted in a number of publications, available from the Ecology web site:

http://www.ecy.wa.gov/

Click on Programs, then Shorelands and Environmental Assistance, then SW Washington Coastal Erosion Study.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/swce/index.html

452.06 Permits and Approvals

Projects in coastal zones and shoreline areas may be subject to one or more of the permits listed in **Section 431.06**, Water Quality. The only permits or approvals relating specifically coastal zones and shorelines are discussed in the following sections:

State

 Section 540.03 – Coastal Zone Management Consistency Certification (from Ecology)

Local

• Section 550.02 – Shoreline Permits (from county or city)

452.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

452.08 Exhibits

None.

453.01	Introduction
453.02	Applicable Statutes and Regulations
453.03	Policy Guidance
453.04	Interagency Agreements
453.05	Technical Guidance
453.06	Permits and Approvals
453.07	Non-Road Project Requirements
453.08	Exhibits

Key to Icons



Web site.*

453.01 Introduction

Most Washington rivers are protected or under consideration for protection by either a federal, state, or local government agency. This chapter includes information and requirements that apply when a transportation project will impact a river designated as a federal Wild and Scenic River or part of Washington's Scenic River System.

(1) Summary of Requirements

Both federal and state legislation protects the wild and scenic values of certain rivers. Transportation projects may adversely affect wild and scenic rivers if they are within a one-quarter-mile of a river shoreline and:

- Require an EIS, EA, or SEPA checklist.
- Require new right-of-way, earth moving, grading, or pile driving.
- Involve bridge replacement.

For such projects, both WSDOT and FHWA encourage early coordination with responsible management agencies. If the river area meets Section 4(f) criteria for protection of certain parks, recreational areas, wildlife or waterfowl. refuges, and historic properties, a Section 4(f) report may be required in addition to a NEPA document (see Section 455.05). For possible permitting requirements, see Section 431.06.

(2) Abbreviations and Acronyms

None specific to wild and scenic rivers. Others are found in the general list in **Appendix A**.

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(a) Federal Wild and Scenic River Definitions

Designated River – River area added to the National Rivers System by an act of Congress.

Nationwide Rivers Inventory – A national listing of rivers potentially suitable for inclusion in the National Rivers System.

Recreational River Areas – Rivers or sections of rivers that are readily accessible by road or railroad that may have undergone some impoundment or diversion in the past.

Scenic River Areas – Rivers or sections of rivers that are free of impoundment, with shorelines or watersheds still largely undeveloped, but accessible in places by roads.

Study River – River area to be studied to determine if it qualifies for addition to the National Rivers System.

Wild River Areas – Areas or sections of rivers of the United States that are free of impoundment and generally inaccessible, except by trail, with watersheds or shorelines essentially un-touched and waters unpolluted. They represent vestiges of America prior to European settlement.

(b) State Scenic River Definitions

Modified Natural – River area where the associated natural environment of the river area is relatively undisturbed with little evidence of cultural development and natural resource management. Forest roads, hunters' cabins, and semi-primitive campgrounds may be evident. Natural features dominate the viewscape.

Primitive – River area that is in pristine condition with minimal evidence of human activity.

Rural – River area characterized by extensive agricultural and other resource-related activities. Cultural development is typically scattered homes and communities.

Urban – River area that is intensively modified by cultural activities, primarily residential and light commercial development. The river has high water quality and highly rated natural features such as historical and archaeological sites, fisheries resources, wildlife, or recreational values.

(c) Other

Wilderness – Areas defined in the Wilderness Act where "the earth and its community of life are untrammeled by man, where man is a visitor who does not remain..."

453.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to wild and scenic river issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 453.06**.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on Wild and Scenic Rivers are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see Chapter 410 and Chapter 411.

(b) Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (PL 90-542, 16 USC Chapter 28) designates certain rivers for special protection. Federally designated Wild and Scenic Rivers within Washington are:

- Skagit River and all tributaries upstream of the pipeline crossing at Sedro Woolley.
- Klickitat River from Wheeler Creek to the confluence with the Columbia River.
- White Salmon River from the confluence of Gilmer Creek (near the town of BZ Corner) to the confluence with Buck Creek.

Federally designated Study Rivers within Washington State are:

- Klickitat River upstream of the confluence of the Little Klickitat River to the Yakima Indian Reservation boundary.
- White Salmon River upstream of the confluence with Gilmer Creek.

Twenty-six Washington rivers are included on the Nationwide Rivers Inventory and are protected under CEQ regulations. In addition, several rivers that are not on the National Rivers Inventory are being proposed for special consideration by the U.S. Forest Service.

For more information about this legislation, designated rivers, and federal management agencies, see the National Wild and Scenic Rivers homepage:



(c) Wilderness Act

The Federal Wilderness Act of 1964 (16 USC, 1131-1136) aimed to establish a national wilderness preservation system that would protect unspoiled lands from encroachment by "permanent improvements or human habitation." Generally, land falling under the Act is managed by the same agency that managed it prior to wilderness designation.

The Act defines wilderness as areas where "the earth and its community of life are untrammeled by man, where man is a visitor who does not remain..." Nearly 10 percent of lands in Washington are designated as wilderness.

For more information about the Act, wilderness maps, and other wilderness information, see the Wilderness Information Network Homepage:

http://www.wilderness.net/

Click on legislation/policy.

Or by direct link:

http://www.wilderness.net/index.cfm?fuse=NWPS&sec=legisPolicy

(d) National Trails System Act

The National Trails System Act (16 USC, 1241-1249) was established in 1968 to provide for recreation, public access, enjoyment, and appreciation of the "open-air, outdoor areas and historic resources of the nation." The Act is applicable in portions of Wild and Scenic Rivers where trails systems exist. It is available online at:

http://www4.law.cornell.edu/uscode/

Select Title 16, Conservation, and Chapter 27, National Trails System.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/ch27.html

(e) Section 4(f) Public Lands Regulations

Section 4(f) of the 1966 Department of Transportation Act, Title 23, CFR 771.135(d), man-dates protection of certain parks, recreational areas, wildlife or waterfowl refuges, and historic properties. Highway projects can only cross these special lands if there is no feasible and prudent alternative and the sponsoring agency demonstrates that all possible planning to minimize harm has been accomplished. For details on Section 4(f) see Section 455.02.

This title is applicable to portions of Wild and Scenic Rivers that are being used for purposes designated in Section 4(f). Public lands adjacent to a wild and scenic river also may be subject to Section 4(f) protection.

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on Wild and Scenic Rivers are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapter 410 and Chapter 411.

(b) Washington Scenic Rivers System

State scenic rivers legislation (RCW 79.72) establishes that certain rivers, due to their "outstanding natural, scenic, historic, ecological, and recreational values," are preserved in "as natural a condition as practical

and that overuse of such rivers...shall be discouraged." However, the program has not been funded by the Legislature since 1993.

The Skykomish River, and its tributaries upstream of the Sultan River, is the only designated State Scenic River. The Washington Scenic Rivers System also includes portions of the Skykomish, Beckler, Tye, and Little Spokane Rivers. Another 18 rivers were evaluated for state scenic river status.

453.03 Policy Guidance

(1) Section 4(f) Involvement

Three memoranda between the Office of Environmental Policy and FHWA (June 6, 1978, October 3, 1980, and May 26, 1981) clarify how Section 4 (f) applies to portions of wild and scenic river areas which are being used or designated for use as a park, recreation, wildlife or waterfowl refuge, or historic preservation. They state that Section 4(f) applicability to Wild and Scenic Rivers is not based solely on a system's designation as a Wild and Scenic River, but rather on whether the system is a "significant publicly owned recreation area." The memoranda are available online in FHWA's Environmental Guidebook:



http://www.fhwa.dot.gov/environment/

Click on Environmental Guidebook, then Wild and Scenic Rivers.

(2) Presidential Directive

An August 1979 Presidential Directive requires federal agencies to take care to avoid or mitigate adverse effects on rivers identified as wild, scenic, or recreational. For a detailed memorandum from the Council on Environmental Quality outlining procedures for interagency consultation to comply with this directive, see *Policy Guidance for Wild and Scenic Rivers* (October 3, 1980) in FHWA's Environmental Guidebook:



http://www.fhwa.dot.gov/environment/

Click on Environment, then Environmental Guidebook, then Wild and Scenic Rivers.

Or by direct link:



http://www.fhwa.dot.gov/environment/guidebook/chapters/v1ch15.htm

453.04 Interagency Agreements

None.

453.05 Technical Guidance

Region Environmental Managers need to monitor projects in their Regions and coordinate with the Environmental Services Office and FHWA whenever a project is in the vicinity of a Wild and Scenic River. Although specific permits may not be required, rigorous environmental documentation will be necessary.

(1) WSDOT Technical Guidance

WSDOT has no formal discipline report for Wild and Scenic Rivers. For projects that may affect a federal or state-designated Wild or Scenic River, this section includes general guidance for assessing potential requirements in a Wild and Scenic Rivers Project Report.

When necessary, this report will be prepared and discuss the projects relationship to any impacts on Wild and Scenic Rivers. The report will provide background information on rivers under the Wild and Scenic Rivers Act of 1968. The report needs to analyze any effects of the project on the rivers "outstanding remarkable values" and recommend mitigation measures as required by the Act. The report will conclude with a determination of effects to rivers that are designated or are eligible for designation under the Wild and Scenic Rivers Act. (P.L. 90-542, as amended and 16 USC 1271-1287).

Most rivers in Washington are protected or under consideration for protection by either a federal, state, or local governmental agency. There is currently no organized clearinghouse for project review. **Exhibit 453-1** gives details on wilderness and scenic values by river reach for all Washington rivers listed in the Nationwide Rivers Inventory.

Projects have the potential for adversely affecting wild and scenic rivers if they are within a one-quarter-mile of a river shoreline and:

- Require an EIS, EA, or SEPA checklist.
- Require new right-of-way, earth moving, grading, or pile driving.
- Involve bridge replacement.

For such projects, the WSDOT regional staff should contact the appropriate agency. If the project is in or near a national forest, the district ranger should also be contacted.

Management plans have been developed for each Wild and Scenic River. These plans must be reviewed as part of the Section 4(f) study (see Section 455.05), and will help determine whether Section 4(f) is applicable. For each alternative that would take such land, coordination with the agency responsible for managing the river will provide information on the management plan, specific affected land uses, and any necessary Section 4(f) coordination.

Responsible agencies are:

State Parks and Recreation Commission - Responsible for managing all state scenic rivers. Local agencies also administer State Scenic Rivers through their Shoreline Management Plans. Contact the appropriate regional State Parks office for projects near a Scenic River corridor or State Park.

National Park Service, Recreation Programs - Responsible for managing all rivers on the Nationwide Rivers Inventory.

Mt. Baker-Snoqualmie National Forest, Mt. Baker Ranger District - Manages the Skagit Wild and Scenic River.

Columbia River Gorge Commission - Manages the Klickitat and White Salmon Wild and Scenic Rivers. It also monitors activities within the Washington side of the Columbia Gorge National Scenic Area which includes SR 14.

Many of these agencies will only review projects at the permit stage, which could result in costly delays and modifications. Contact should be initiated early if there is a possibility of adverse effect in order to identify any agency concerns.

For relatively simple projects, an easy way to make the contact is to circulate a SEPA checklist to the responsible agency. Written contact should occur at the scoping stage for a project requiring an EA or EIS. A similar contact should be made with the appropriate local agency if a state scenic river is involved. If there is no response to written contact, it is assumed that the project is not within a Wild and Scenic River corridor or will not cause adverse effects.

If adverse impacts are likely, request assistance in writing from the administering agency and address agency comments and concerns. All reasonable measures to avoid or mitigate should be considered. Document the coordination and commitments made and include them in project design and construction documents.

(2) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing NEPA and 4(f) documents, including specifically sections on Wild and Scenic Rivers. If a proposed action could have adverse effects on a river in the National Wild and Scenic Rivers System or a river under study for designation, the draft EIS should identify early coordination with the agency responsible for managing the listed or studied river.

For each alternative, the EIS should identify the potential adverse effects on natural, cultural, and recreational values. Adverse effects include alteration of the free-flowing nature of the river, alteration of the setting, or deterioration of water quality. If it is determined that any of the alternatives could foreclose options to a designated or study river, or adversely affect the qualities for which a river was designated, the draft EIS needs to reflect consultations with the managing agency on avoiding or mitigation the impacts (23 CFR 771.123). The final EIS should identify measures that will be included in the preferred alternative to avoid or mitigate such impacts.

See Section 455.05 for Section 4(f) requirements.

For more on the Technical Advisory, see FHWA's home page:



Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

453.06 Permits and Approvals

No specific permits are required for Wild and Scenic Rivers. However, close agency coordination is needed on studies, agency determination of impacts and possible mitigations, and selection of alternatives. Projects affecting Wild and Scenic Rivers may be subject to one or more of the permits listed in Section 431.06, Water Quality.

453.07 Non-Road Project Requirements

The same policies, procedures, and permits that apply to road projects generally apply to non-road projects; for example emergency airstrips or rail lines located near a designated wild or scenic river.

453.08 Exhibits

Exhibit 453-1 – Values Identified for Washington Rivers Listed in Nationwide Rivers Inventory.

Values Identified for Washington Rivers Listed in Nationwide Rivers Inventory

River Name	.,	Counties		Segment Reach Description		Outstandingly Remarkable Values (ORV))	Narrative Description of Values
	Physiographic Section		Congressional Districts		Length (miles)	Scenic	Recreation	Geologic	Fish	Wildlife	Historic	Cultural	Other	
Bogachiel and North Fork	24a	Clallam Jefferson	3	The entire mainstem and North Fork from source to confluence with Soleduck River. Mainstream North Fork	44 7	х	x		X	x				A major river on the Olympic Peninsula. The upper portion is a pristine mountain on unroaded national park land with steep gradients, cascades, falls, and rapids. The low river is slower, wider and meanders through coastal forest with scattered agricultural and recreation development. Outstanding anadromous fishery. Recreational boating on lower river. Excellent water quality, although clay banks along lower river cause some discoloration. Important habitat for wildlife, including elk and bald eagles.
Chiwawa River	23a	Chelan	4	Entire length.	30		х							Relatively pristine mountain stream fed from Glacier Peak Wilderness Area; flows through mixed terrain of moderately steep valleys and wider meadows. Opportunities for kayaking, canoeing, rafting, and fishing.
Cispus River	23b	Lewis Skamania	2 4	Entire length	52	х	х		X					A fixed channel and braided river flowing through mainly undeveloped heavily forested areas. Large subalpine meadows near the headwaters with majestic views of the Goat Rock Wilderness. Important resident fishery resource. Considerable boating potential.

River		Counties	а	Segment Reach Description		ORV								Narrative Description of Values
Name	Physio Section		Congressiona 1		Length	Scenic	Recreation	Geologic	Fish	Wildlife	Historic	Cultural	Other	•
Columbia River	20a	Benton Franklin Grant Yakima	4 5	From Priest Rapids Dam downstream to slack water at McNary Pool (Lake Wallula)	55				x	x		X		The Hanford Reach is the only remaining significant free-flowing section of the Columbia River in the United States, and it represents the most diverse fish and wildlife habitat on the mid-Columbia Rive. The area is used by bald eagles, peregrine falcons, Canada geese, and an assortment of other species, as well as a large variety of fish types. Largely undeveloped, it flows through the Hanford Nuclear Reservation. A large number of archaeological sites have been identified.
Cowlitz River	23b	Lewis	2	From its source downstream to the confluence with the Cispus River.	42			х						Fixed channel and looped meandering river draining the southeast slopes of Mt. Rainier, and carrying significant amounts of glacial debris; being a fine example of an outwash stream. Excellent fishing resource.
Dosewallips River	24b	Jefferson	3	Entire length.	28	х		x						High scenic values, especially of the surrounding Olympic Mountains. Undeveloped, wilderness stream; clear water and unrestricted flow with numerous rapids, cascades, and small waterfalls. Dense forestation and good outdrop examples of Olympic Peninsula geology. Rises in Olympic National Park. Some kayaking in lowest reaches.
Duckabush River	24a 24b	Jefferson	3	Entire length.	24	х		х						Scenic views of surrounding Olympic mountains. Undeveloped, wilderness stream; clear, unrestricted flow with numerous rapids, cascades, and waterfalls. Subalpine meadows in the upper valley reach and very heavy forestation in the lower reaches. Rises in Olympic National Park.

River		Counties	а	Segment Reach Description	ORV									Narrative Description of Values
Name	Physio Section		Congressiona 1	3 1	Length	Scenic	Recreation	Geologic	Fish	Wildlife	Historic	Cultural	Other	•
Hoh River	24b	Jefferson		Entire length.	55	Х	х	Х	X					Considerable braided, glacier fed coastal river rising in Olympic National Park. Flows through a highly diverse landscape, including rare rain forest. Sustains considerable fishing and recreation; important winter steelhead resource; canoeing and rafting. Premier example of a high flow, glacial river, with superb scenic values.
Humptulips River & West Fork	24b	Grays Harbor		Entire mainstem and West Fork.	61	х	х		х					Good example of a coastal stream rising in higher mountainous regions and flowing through a diversity of landscape types. Upper undeveloped portion is a fixed channel, steep stream, while lower looped meander portion is low gradient. One of the most important winter steelhead resources – excellent recreational fishing resource. Canoeing and kayaking, potential rafting.
Kettle River	19	Ferry Stevens	5	Entire Washington portion.	54	х	х				Х			Gently meandering stream flowing through historic mining region. Good scenic values and sufficient year-round flow and grade for premier canoeing and floating opportunities.
Klickitat River	23b	Klickitat	4	From the southern boundary of the Yakima Indian Reservation downstream to the confluence with the Columbia River.	48	Х		х	х					Major canyon with high scenic values; fishing and some boating. Important summer Washington steelhead fishing stream.

River	River Counties Segment Reach						T	T	O	RV				Narrative Description of Values
Name	Physio Section		Congress Districts	Description	Length	Scenic	Recreation	Geologic	Fish	Wildlife	Historic	Cultural	Other	•
Methow River	19	Okanogan	4	The entire mainstem from source to mouth, and the major tributary, Chewack River. Methow River Chewack River	80 41	х	X		x	x				A long river which drains the northern portion of the eastern slope Cascades. Headwaters are in a narrowly inclined valley on mostly unroaded national forest land, while most of the valley is privately owned agricultural land. The pastoral valley, combined with the nearby backdrop of Cascade peaks, makes the river visually appealing. Scenery from the river itself is relatively natural because of streamside vegetation and cliffs. Supports a wide range of recreational boating. A major anadromous/resident fishing stream with excellent pool/riffle ratio and clear water. A major wintering area for big game and raptors, including bald eagles.
Nisqually River	23b	Lewis Pierce	2	From Nisqually glacier downstream to Alder Reservoir.	28	x		х						Classic example of Alaska-type glacier fed stream. Cold, silty water in numerous braids, beginning in Mt. Rainier National Park. Course generally broad and shallow with numerous gravel bars and log debris. Essentially undeveloped.
Nooksack River and South Fork and Middle Fork and Wells Creek	23a	Whatcom Skagit	2	The upper mainstem from its source downstream to its confluence with the South Fork and the entire South and Middle Forks and Wells Creek.	35 37 20	х	х	x	х	x				High flow, glacier-fed river system rising in Mt. Baker-Mt. Shuksan area. Important salmon resource, and good Dolly Varden trout run. Sustains substantial boating use. Winter meeting area for eagles. Many cascades and waterfalls, including Nooksack Falls on the main North Fork.

River	Counties Segment Reach								OI	RV				Narrative Description of Values
Name	Physio Section		Congress Districts	Description	Length	Scenic	Recreation	Geologic	Fish	Wildlife	Historic	Cultural	Other	
Palouse River	20a	Whitman Adams Franklin	5	From Colfax downstream to the confluence with the Snake River.	72			х						Varies from upper meandered portion to lower canyon with vertical walls cut in Columbia basalt, providing excellent examples of volcanic formations, including Little Palouse and Palouse Falls (185-ft drop).
Rock Creek	20a	Whitman Adams Franklin	5	Entire length.	52			x						Flows through sparsely vegetated channeled scabland region; stream course includes a series of narrow, natural lakes located in small vertical-walled canyons cut in Columbia basalt. Good columnar jointing and other geologic formations. Upper portion essentially undeveloped.
Skagit River and tributaries		Skagit, Snohomish		Segment from town of Mount Vernon to and including the mouth of Bacon Creek; Cascade River between its mouth and junction of its North and South Forks; South Fork to boundary of Glacier Peak Wilderness Area; Suiattle River from its mouth to Glacier Peak Wilderness Area boundary at Milk Creek; Sauk River from its mouth to its junction with Elliott Creek; North Fork of Sauk River from its junction with South Fork of Sauk to Glacier Peak Wilderness Area boundary.		X	X	X	X	X	X	X	X	
Skykomish River and North and South Forks	23a	Snohomish King	2	South Fork, North Fork and mainstem from source to confluence with Snoqualmie River, including major tributaries (Beckler R., Tye R., Miller R. and Foss River) Mainstream South Fork & Tributaries North Fork	54 26 28	х	х		x					A major Western Washington river accessible by highway, close to large urban population. Highly scenic mountain valley. Exceptional boulder and floodway zones. Clear water with rapids, cascades and falls in upper reaches. Braided streamway corridor with outstanding accretion beaches and gravel bars in lower reaches. Substantial runs of anadromous fish and high wildlife diversity. Supports wide variety of recreational boating. Portions are in the State Scenic and Recreational Rivers System.

River		Counties		Segment Reach ORV									Narrative Description of Values	
Name	Physio Section		Congress Districts	Description	Length	Scenic	Recreation	Geologic	Fish	Wildlife	Historic	Cultural	Other	•
Middle Fork Snoqualimie River	23a	King	2	From its source downstream to a point approximately four miles upstream from the confluence with the South Fork.	31	х	х		х					A fixed channel stream of high and moderate gradients rising from a tarn lake amid alpine meadows and rugged mountain slopes. Essentially undeveloped; excellent white water opportunities in lower reaches. Resident fish resource.
Soleduck River	24a	Clallam	3	Entire length.	65				х					Both fixed and looped meander channel pattern in the lower valley reaches, with low to moderate gradients and flow. Major Olympic drainage flowing through thickly forested areas. Produces some of the largest winter steelhead fish. Flows near well-known and developed hot springs area.
Tucannon River	20a 20b	Columbia Garfield	5	Entire length.	57				x	x	x			Undeveloped upper portion; flows primarily in flat floored, steep-sided valley, past several small lakes. Good example of rejuvenated, underfit stream with present channel flowing within a narrow floodplain, well-defined by former mature meander pattern. Excellent fish and wildlife habitat. Some boating.
Wenatchee River	23a	Chelan	4	From Wenatchee Lake downstream to the confluence with Icicle Creek.	30	х	х	х						Major eastern Cascades river which sustains considerable white-water boating and fishing. Includes spectacular Tumwater Canyon. Heavily used commercial rafting river in the lower reaches and popular canoeing stream near Lake Wenatchee.
White River	23a	Chelan	4	Entire length.	34	х	х							Pristine wilderness stream with cascades and waterfalls. Rises in the Glacier Peak Wilderness. Some kayaking. Almost totally undeveloped.

River		Counties		Segment Reach		ORV								Narrative Description of Values
Name	Physio Section		Congress Districts	Description	Length	Scenic	Recreation	Geologic	Fish	Wildlife	Historic	Cultural	Other	·
Wind River	23b	Skamania	4	Entire length.	29			X	X					Swift stream flowing through interesting volcanic terrain, including some hot springs areas. Important summer steelhead resource.
Yakima River	23a 20a	Kittitas Yakima	4	From Crystal Springs to Lake Easton; River Mile 190 to confluence with Cle Elum River; from Teanaway, WA to Highway I-90 at Ellensburg and from Zillah to Prosser.	9 6 28 44		x	x	х	x				Scenic, geologically interesting rugged canyon displaying entrenched meanders and cutting through folded basalt. Fish and wildlife (notably bird) habitat; one of few potential wild trout producers. Considerable canoeing, some rafting and kayaking. Very popular swimming and tubing river. Dense and diverse riparian zone. Lower portion displays wide flood-plain characteristics.

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Interagency agreement.

454.01 Introduction

The loss of productive farmland to highways, urban sprawl, and other types of development is cause for concern. Highways may increase the pressure for conversion from farming to other uses. By making inaccessible areas more accessible, highways increase potential for development. In turn, development increases land values and property taxes, tending to make farming economically less feasible. Adjacent development is often incompatible (or is perceived as being incompatible) with farming, and farming activities may be considered a "nuisance" by newcomers. Additional traffic moving at high speeds also creates a safety hazard for slow moving farm machinery.

Farmlands may be converted as a result of locating a new road in a farming area, rebuilding and/or enlarging an existing road, or adding an interchange from an interstate highway in a rural area. Conversion may indirectly result when land remaining in a tract partially taken for right of way can no longer be farmed because the project would restrict access, or is converted because of accessibility to a new highway.

(1) Summary of Requirements

Farmlands defined as "prime," "unique," or of state or local significance are protected by federal and state legislation. During project scoping, potential impacts to protected farmlands are identified in the Environmental Review Summary (see Section 310.05). Early consultation with the Natural Resources Conservation Service (NRCS), and state and local agencies is recommended, and a farmland conversion impact rating process should be used, in coordination with these agencies, to determine the degree of impact and whether alternatives or mitigation will be necessary. Environmental documents are prepared based on the results of this rating.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

DOA U.S. Department of Agriculture

FPPA Farmland Protection Policy Act

NRCS Natural Resources Conservation Service

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Farmland of Statewide or Local Importance – Farmland, other than prime or unique farmland, that is of statewide or local importance for the production of food, feed, fiber, forage, or oil-seed crops, as determined by the state or local government agency or agencies, using U.S. Department of Agriculture guidelines.

Indirect Conversion – Acres remaining in a tract that is partially taken for right of way which (a) could no longer be farmed because the project would restrict access, or (b) would likely be converted because of accessibility to a new highway.

Prime Farmland – Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland includes land that possesses the above characteristics and may include land currently used as cropland, pastureland, rangeland, or forestland. It does not include land already in or committed to urban development or water storage.

Site – Any alternative alignment on a highway project, including areas converted directly (within the right of way) or indirectly by a proposed action (see "Indirect Conversion").

Unique Farmland – Land other than prime farmland that is used for production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include lentils, nuts, annually cropped white wheat, cranberries, fruits, and vegetables.

454.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to farmland and agriculture issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 454.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section <u>4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts to farmland are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and

local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). WAC 197-11-444(2)(b) lists "Agricultural crops" as an element of the environment to be considered. For details see **Chapter 410** and **Chapter 411**.

(2) Farmlands Protection Policy Act

The purpose of the Farmlands Protection Policy Act (FPPA) of 1981 (7 USC 42014209) is to minimize impacts on farmlands and maximize compatibility with state and local farmland programs. Farmlands are classified as prime, unique, or of statewide or local importance. The following types of land are exempt under the FPPA:

- Soil types not suitable for crops (such as rocky terrain and sand dunes).
- Urban sites where the right of way required for a highway project is wholly
 within a delineated urban area and the project requires no property from
 prime or unique farmlands or farmlands of statewide or local importance.
- Farmland that has already been converted to industrial, commercial, residential, or recreational activity.

Information about the FPPA is online at the NRCS web site:



Click on Programs, then scroll down to Related Information, then click on Farmland Protection Act.

Or by direct link:



Implementing Regulations in 7 CFR 658 include a scoring system for determining a project's potential impacts (7 CFR 658.4) that could hasten the conversion of farmland. Also available on the NRCS web site:

http://www.nrcs.usda.gov/

Do the above, to access Farmland Protection Act, then scroll down to the shaded area and click on FPPA Rule, 7 CFR 658.

Or by direct link:

http://www.nrcs.usda.gov/programs/lesa/cfr/7cfr658.html

(3) State Growth Management Act

The Growth Management Act (GMA) requires all counties and cities in rapidly growing areas to designate resource lands, including agricultural lands of long term significance. The policies may be included in the Countywide Planning Policies or codified in the County or City's Comprehensive Plan and implementing regulations. These regulations may specify permitted uses and the size and type of infrastructure allowed in the resource areas. For example, the jurisdiction's arterial plan must provide roadway designations that are consistent with the agricultural character and needs of designated resource areas. For details on the GMA, see Section 451.02.

(4) Farmlands Preservation Executive Order

Washington's Farmlands Preservation Executive Order 8001 of 1980 requires state agencies to consider farmland preservation during program development.

(5) Local Right-to-Farm Ordinances

Some counties and cities have right-to-farm ordinances that are designed to provide some protection to farmers from nuisance complaints by urban dwellers in a farming community.

454.03 Policy Guidance

None.

454.04 Interagency Agreements

(1) State Conservation Commission – Memorandum of Understanding

This MOU between the State Conservation Commission and WSDOT aims to enhance cooperation to preserve agricultural and forest lands; to prevent and treat erosion problems adjacent to or associated with farmlands and state highways; to maintain drainage ways; and to reclaim abandoned roadways for agricultural purposes. The MOU is online at:



Memorandum of Understanding, WSDOT-Washington State Conservation Commission, Agreement GC 7147.

(2) Other

See **Appendix E** for a complete index to interagency agreements referenced in the EPM.

454.05 Technical Guidance

(1) WSDOT Discipline Report

NEPA implementing regulations require evaluation of potential project impacts on farmlands classified as prime, unique, or of statewide or local significance. WSDOT's checklist for preparing a Farmland and Agriculture Discipline Report is attached as Exhibit 454-1. The checklist focuses on coordination with the Natural Resource Conservation Service (NRCS) and completion of the Farmland Conversion Impact Rating (Form AD 1006 or NRCS-CPA-106); see details below. WSDOT and NRCS guidance for preparing the rating and environmental documents is given below. Note that since farmland often contains regulated wetlands, the potential for wetland impacts should also be considered (see Section 437.05).

A Farmland and Agriculture Discipline Report is needed for an EIS project when there is a reasonable probability that the project would have more than a moderate effect on farmland in the project area. For example, a Discipline Report would be needed if the project would cause a substantial amount of prime farmland to be converted from farming to other uses, or otherwise make it unusable for farming, despite any proposed mitigation. For an EA project, a Farmland and Agriculture Discipline Report is needed when it is determined that the project may have more than a moderate effect on farmland in the project

area, but further analysis is needed to establish whether there is a reasonable probability that such an effect will occur. The rationale for determining that a full Discipline Report is not needed should be documented in a technical memo that is kept in the project file.

(2) Other WSDOT Guidance

(a) Overview

Following is a summary of the steps required in considering potential impacts on farmland.

- During the development of the Environmental Review Summary, the regional office reviews the impact of the project on preservation of farmland (see Section 310.05).
- Identify all new projects requiring new right of way that contain farmlands or that may cause indirect conversion of farmlands.
- Contact local governments to identify any farmlands of local importance and any farmland protection programs.
- Determine if the project is federally exempt.
- If not, complete Form AD-1006 or NRCS-CPA-106 (see below) and consider alternatives that could lessen the adverse effects on farmlands.
- Document the determination process.
- Determine if an EIS is required.
- Complete the environmental document.

(b) Exempt Projects

The following projects are generally exempt:

- Construction within existing rights of way purchased before August 6, 1984.
- All resurfacing and normal road repairs.
- Rights of way taken from existing residents and/or businesses.
- Borrow areas and disposal sites not arranged for under the direction of WSDOT.
- Land committed to water storage.

(c) Farmland Conversion Rating (Form AD-1006 or NRCS-CPA-106)

Form AD-1006 is used if the project is site-specific, for example a farmland parcel being acquired for wetland mitigation. Form NRCS-CPA-106 is used for "corridor type" projects such as highways. If the project is not exempt, the regional office completes Part I and III of the rating form and submits the required number of copies to the appropriate NRCS office. If the project is located within only one District, the form should be sent to the NRCS District (Field) office and NRCS State Conservationist. If the project is located within more than one NRCS district, the correspondence should be sent to the NRCS State Conservationist. (See below for NRCS web site.)

When requesting information from local governments or submitting the rating form to the NRCS, include the following:

- Vicinity map.
- Description of all proposed project alternatives, including possible right of way needs.
- Soil survey area number (available from local NRCS office or web site shown below).

The NRCS area conservationist will determine whether the proposed alternative (site) converts land meeting the definition of farmland. If the FPPA does apply, the NRCS will complete the rating form, Part II, IV and V, within 45 calendar days. If they do not respond within the 45 days, causing delays that interfere with construction, the project may proceed without the NRCS determination.

If the local government and/or NRCS indicates that the proposed project would convert farmlands, the region completes Parts VI and VII of the rating form.

Forms AD-1006 and NRCS-CPA-106, with detailed instructions, are on line at the NRCS web site:



Click on Programs, then scroll down to Community Assistance Programs and Activities, then click on Farmland Protection Policy Act, then scroll down to the shaded area and click on Form AD-1006 or Form NRCS-CPA-106.

Or by direct link:

http://www.nrcs.usda.gov/programs/fppa/pdf_files/CPA106.pdf

Or

http://www.nrcs.usda.gov/programs/fppa/pdf_files/AD1006.PDF

To reach the Washington NRCS web site, go to the NRCS home page at:

http://www.nrcs.usda.gov/

Click Find a Service Center, then click on WA, then click on the desired county.

Or by direct link:

http://offices.usda.gov/scripts/ndCGI.exe/oip_public/USA_map

(d) NEPA Determination

Upon completion of documentation, the region makes the final evaluation for a NEPA Finding of No Significant Impact (FONSI). Using alternative comparisons and subsequent mitigation, the regional office coordinates with NRCS to decide whether or not to proceed with a farmland conversion.

(e) Contents of Environmental Document

See below for specific NRCS guidance. In general, the project environmental document should discuss or include each of the following items:

- Would an alternative route location or design require losing less farmland important to agriculture?
- What are the secondary effects of the proposed action on farmlands important to agriculture?
- What benefits are foregone if farmlands important to agriculture are taken?
- A copy of completed Form AD-1006 or NRCS-CPA-106.
- A summary of the farmland protection process, including the final decision.
- Any mitigation measures that will reduce farmlands impacts.

(3) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing NEPA and Section 4(f) documents, including specifically sections on farmland impacts. See also **Section 455.05** for Section 4(f) requirements. If it is determined that an EIS is necessary, the draft should summarize the results of early consultation with the NRCS and state and local agriculture agencies where any of the four specified types of farmland could be directly or indirectly impacted by any alternative under consideration.

Where farmland would be impacted, the draft EIS should contain a map showing the location of all farmlands in the project impact area, discuss the impacts of the various alternatives and identify measures to avoid or reduce the impacts. The Farmland Conversion Impact Rating (Form AD-1006 or NRCS-CPA-106) should be processed, and a copy included in the draft EIS. Where the Land Evaluation and Site Assessment score (from the rating form) is 160 points or greater, the draft EIS should discuss alternatives to avoid farmland impacts. For information on LESA check the following web site:

http://www.nrcs.usda.gov/programs/lesa/

If avoidance is not possible, measures to minimize or reduce the impacts should be evaluated and, where appropriate, included in the proposed action.

The FHWA Advisory is online at:



Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A, then scroll down to Farmland Impacts on page 21.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

454.06 Permits and Approvals

No permits are usually required that specifically address impacts to or conversion of agricultural land. Local grading permits may be needed for work in critical areas (see Section 550.05). Wetlands permits are listed in Section 437.06.

454.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

454.08 Exhibits

Exhibit 454-1 – Farmland and Agriculture Discipline Report Checklist.



Discipline Report Checklist Farmland and Agriculture

Projec	t Name:	:			Job Number:
Contac	ct Name	e:			
Date F	Received	d:		Date Reviewed:	Reviewer:
(SAT	= Satisf	actory;	INC =	Incomplete; MIS = Missin	g; N/A = Not Applicable)
Answe	ers are r	equired	for que	estions which have no N/A	box.
l.	Studi	es and	Coor	dination	
mission 7 CFR Impler Order T 6640 Includ	on Agree Part 65 menting 80-01, 1 0.8A.)	ement G 58; FHW <i>the Fin</i> Farmlan	SC 7141 VA Far al Rule ad Prese	; Farmland Protection Polemland Protection Policy A for Highway Projects, Octavation, January 4, 1980; on with the Natural Resource.	Vashington State Conservation Com- licy Act [FPPA], 7 USC 4202, Rules, Act Supplemental Guidelines for stober 1984; Governor's Executive and FHWA Technical Advisory
SAT	INC	MIS	N/A		
			IVA	A. Determined if project	t will convert farmland?
					n Impact Rating (Form AD-1006 or rt 1 and Part 3 completed.
				C. Form AD-1006 or NI	RCS-CPA-106 accompanied by:
				1. Vicinity map.	
				2. Project alternative	es.
				3. Soil Survey Area	number.
				NRCS-CPA-106) sub	Impact Rating (Form AD-1006 or bmitted to appropriate Natural Resources e (NRCS) office return receipt mail.

Date Farmland Conversion Impact Rating (Form AD-1006 or NRCS-CPA-106) received at NRCS office. (NRCS has 45 days from receipt to complete evaluation. CFR 658.4(a) states that if 45 days have passed without an evaluation and this may hold up the project, proceed as if no farmland is being converted.)

SAT	INC	MIS	N/A	
				E. Completed Form AD-1006 or NRCS-CPA-106 returned by NRCS.
				F. Section VI and VII completed per CFR 658.5(b).
				G. Coordinated with FHWA (if federal funds) for review and concurrence.
				H. Incorporated evaluation in environmental document.

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Interagency agreement.

455.01 Introduction

This chapter includes information needed for projects that will affect Section 4(f) public lands and Section 6(f) outdoor recreation lands. These requirements often overlap with those for projects affecting historic properties (Section 106), and cultural and archaeological resources, which are discussed in **Chapter 456**. See also **Section 411.12** for guidance on preparing Section 4(f) and Section 106 reports for NEPA projects.

The section also includes information needed for projects affecting state and national forest lands, which are designated for timber harvest. Projects affecting public forest lands are not subject to Section 4(f) or Section 6(f); however, other regulations apply.

(1) Summary of Requirements

The major legislative mandates and requirements discussed in this section are:

Public Lands – Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303) applies to projects using a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or historic site (23 CFR 771.135). Section 4(f) may also apply to Wild and Scenic Rivers (see **Chapter 453**). Section 4(f) is not a SEPA requirement and should not be addressed in SEPA documents. Section 4(f) is a federal requirement and needs to be considered in any NEPA document (see **Section 411.12**). However, a NEPA action does not always require a 4(f) evaluation. For example, if there is no Section 4(f) nexus, the NEPA document need only explain that Section 4(f) does not apply to the project. Always consult with the Regional Environmental Manager if it is not clear whether or not Section 4(f) applies to a specific project.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

Outdoor Recreation – Section 6(f) of the Land and Water Conservation Funds Act applies to conversion of outdoor recreation property acquired or developed with grant assistance from an Interagency Committee for Outdoor Recreation.

Forest Lands – An MOU between FHWA and the United States Forest Service (USFS) establishes procedures for coordinating transportation activities on National Forest Lands. Washington's Forest Practices Act applies to projects affecting state forest lands; a permit must be obtained from the Washington State Department of Natural Resources (DNR).

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

DNR Washington State Department of Natural Resources

DOI United States Department of Interior

NF National Forest

USFS United States Forest Service

(3) Glossary

None. See **Appendix B** for a general glossary of terms used in the EPM.

455.02 Applicable Statutes and Regulations

Projects that involve impacts to public lands and/or national forest are subject to the statutes and regulations summarized below. Note that some of the following laws and regulations apply to historic and archaeological sites as well as to other public lands. See Section 456.02 for laws and regulations applying specifically to historic sites. See Appendix D for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in Section 455.06.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section <u>4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to public lands are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see **Chapter 410** and **Chapter 411**, particularly **Section 411.12**.

(2) Section 4(f) - Department of Transportation Act and Implementing Regulations
Protection of certain public lands and all historic sites was originally mandated in
Section 4(f) of the 1966 Department of Transportation Act. This section was
repealed in 1983 and later codified without substantive changes as 49 USC 303.
However, it is still referred to as Section 4(f) in the FHWA Environmental

Procedures (23 CFR 771.135) and popularly by many WSDOT staff.

Section 4(f) declares a national policy to preserve, where possible, "the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Highway projects can only cross these

special lands if there is no feasible and prudent alternative and the sponsoring agency demonstrates that all possible planning to minimize harm has been accomplished. Visual resource mitigation may be required in certain instances as part of these plans.

Under Section 4(f), the FHWA and other USDOT agencies cannot approve the use of land from a publicly owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site, unless a determination is made that:

- There is no feasible and prudent alternative to using the property; and
- The proposed action includes all possible planning to minimize harm to the property resulting from such use.

In addition, before approving use of these lands for a transportation project, supporting information must demonstrate that there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitude.

In addition to mandating protection of certain land uses, FHWA rules require that when the project's impacts in the proximity of the protected area are so severe that the resources' activities, features, or attributes are substantially impaired, then Section 4(f) is also called into effect even if the project does not actually intrude into the protected use. These impacts could constitute "Constructive Use" of the site. Impacts may include:

- Resources affected by noise levels.
- Aesthetic features of the resource compromised by the transportation facility.
- Access restricted, substantially diminishing the utility of the resource.
- Vibrations impair use of the resource and diminish the value of wildlife habitat.

(3) Section 6(f)—Land and Water Conservation Funds Act

This statute applies to all projects which impact recreational lands purchased or improved with land and water conservation funds. The Secretary of the Interior must approve any conversion of property acquired or developed with assistance under this act to other than public, outdoor recreation use.

(4) DOT Design, Arts, and Architecture Program

To further implement NEPA, Section 106(h) and Section 4(f), the Department of Transportation inaugurated its Design, Arts, and Architecture in Transportation Program in 1978. Outlined in DOT Order 5610.1C, revised Attachment 2, the program requires that environmental impact statements document the consideration of design quality in projects which involve public use areas or sensitive locations such as parks or historic districts.

(5) Washington Forest Practices Act and Implementing Regulation

The Forest Practices Act (RCW 76.09.020) guides the management of public and private forest lands consistent with sound policies of natural resource protection. The Forest Practices Board is authorized to implement this act, including

issuance of a permit to alter forest lands to non-forest uses. Implementing regulations include definitions (WAC 222-16) and application and notification procedures (WAC 222-20).

455.03 Policy Guidance

(1) DNR Forest Management Plan

Washington State Department of Natural Resources is responsible for managing the state's forests for the welfare of the people of the state, through the various trust funds associated with timberlands. This responsibility includes issuing permits for alterations to forestlands.

(2) Local Plans and Policies

City and county comprehensive plans and parks and recreation plans may contain policy guidance on public lands, including significant trees or groves, wildlife habitat, parks, and recreation areas. These documents should be considered in preparing the public lands section of environmental documents.

455.04 Interagency Agreements

(1) National Forest Lands

A July 12, 1991 Memorandum of Understanding (MOU), updated March 22, 2002, establishes procedures for coordination of transportation activities on National Forest lands. It states the WSDOT and the USFS will agree on the needed environmental documentation and lead agency responsibility. The agreement covers coordination, project programming and planning, pre-construction, rights-of-way, construction/re-construction, maintenance, signs, access control, and third party occupancy. The new MOU is available online via the USFS home page:

http://www.fs.fed.us/

Click on Publications, then Directives, then Field Issuances, then 1000 Organization and Management – select Region 6, then 1561.9b.

Or by direct link:

http://www.fs.fed.us/im/directives/field/r6pnw/fsm/1500/1561_9b.doc

(2) Other

None identified.

455.05 Technical Guidance

(1) Section 4(f) Evaluations

The Section 4(f) evaluation is a separate analysis of impacts to covered resources that could result from one or more alternatives being considered for a transportation project. In addition to property acquisition, "constructive use" of Section 4(f) land may include impacts on aesthetics, access, air quality, noise levels, water quality, or land use in the area. FHWA reserves the right to determine whether "constructive use" is applicable. The use of Section 4(f) land

may involve concurrent requirements of other federal agencies. Examples include consistency determinations for the use of public lands managed by the Bureau of Land Management (BLM), compatibility determinations for the use of land in the National Wildlife Refuge System and National Park System, determinations of direct and adverse effects on Wild and Scenic Rivers (see Chapter 453), and approval of land conversion under Section 6(f) of the Land and Water Conservation Fund Act. Mitigations planned for the project should include measures to satisfy all such requirements.

FHWA guidance on the applicability of Section 4(f) to projects in Wild and Scenic River Corridors is described in Section 453.03.

Technical guidance on Section 4(f) Materials and Procedures, including comparisons to Section 6(f) and Section 106 issues, is available by direct link:

http://www.wsdot.wa.gov/environment/compliance/Section4f_Material.htm

When analysis of project actions determines that there will be no anticipated Section 4(f) impacts, this assumption should be briefly stated in the NEPA EIS or EA. A technical memo for the project file should explain why no impacts were determined. If the impacts are minor, a programmatic evaluation may be used (see below). This is a complex issue with varying levels of determining criteria. The level of evaluation is usually determined thru coordination with FHWA.

(a) WSDOT Section 4(f) Evaluation Checklist

The WSDOT checklist for preparing Section 4(f) Evaluations is attached as **Exhibit 455-1**. The report should cover the basic NEPA requirements for affected environment, impacts, and studies and coordination as related to Section 4(f). For additional guidance, see **Section 411.09**.

(b) FHWA Guidance

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents and Section 4(f). Section IX gives detailed guidance on format and content of Section 4(f) evaluations. For details, see FHWA's home page:



Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

FHWA's Section 4(f) Policy Paper, issued March 1, 2005, provides comprehensive guidance on preparing Section 4(f) evaluations. The complete paper (html format), is available on FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Section 4(f).

Or by direct link:



http://environment.fhwa.dot.gov/projdev/4fpolicy.htm

(c) Section 4(f) Programmatic Evaluations

As an alternative to preparing an individual Section 4(f) evaluation, WSDOT may in certain circumstances have the option of applying a programmatic evaluation. A programmatic Section 4(f) evaluation specifies conditions which, if met, will satisfy the requirements of Section 4(f) that there are no feasible and prudent alternatives and that all possible planning has been done to minimize harm. These conditions generally relate to the type of project, the severity of impacts to Section 4(f) property, the evaluation of alternatives, the establishment of a procedure for minimizing harm to the Section 4(f) property, and adequate coordination with appropriate entities. Section 4(f) park and recreation areas may have national, regional, statewide or local significance.

FHWA has prepared four programmatic evaluations to be used for projects having impacts on resources covered by Section 4(f). A separate 4(f) evaluation is not needed for projects meeting the criteria set forth in these programmatic evaluations:

Historic sites - Final Nationwide Section 4(f) Evaluation and Approval for Federally Aided Projects with Minor Involvements with Historic Sites (December 23, 1986).

Historic Bridges – Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges (July 5, 1983).

Public parks, recreation lands, and wildlife and waterfowl refuges -Final Nationwide Section 4(f) Evaluation and Approval for Federally Aided Projects with Minor Involvements with Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges (December 23, 1989)

Bikeways and walkways – Negative Declaration/Section 4(f) Statement [i.e. Determination of Nonsignificance] for Independent Bikeway or Walkway Construction Projects (May 23, 1977).

These documents are available online on FHWA's web site:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Section 4(f).

Or by direct link:



http://environment.fhwa.dot.gov/guidebook/chapters/V2ch15.htm

Technical guidance on Section 4(f) Policy, including Programmatic Evaluation criteria, is available on WSDOT's ESO Compliance Program web site at:



http://www.wsdot.wa.gov/environment/compliance/ Section4f guidance.htm

The fact that the nationwide programmatic Section 4(f) evaluations are approved does not mean that these types of projects are exempt from or have advance compliance with the requirements of Section 4(f). Section 4(f) does apply to each of the types of projects addressed by the programmatic evaluations. Furthermore, the programmatic Section 4(f) does not relax the Section 4(f) standards; i.e., it is just as difficult to justify using Section 4(f) land with the programmatic Section 4(f) evaluation as it is with an individual Section 4(f) evaluation.

These programmatic Section 4(f) evaluations may be applied only to projects meeting the applicable criteria. How the project meets the criteria must be documented. The documentation needed to support the conclusions required by the programmatic Section 4(f) evaluation is comparable to the documentation needed for an individual Section 4(f) evaluation.

The primary advantage of a programmatic evaluation is that it saves time. A programmatic evaluation does not require a draft, legal sufficiency review, or circulation, because its framework and basic approach have already been circulated and agreed upon by the US Department of the Interior (DOI).

These programmatic Section 4(f) evaluations streamline the amount of interagency coordination that is required for an individual Section 4(f) evaluation. Interagency coordination is required only with the official(s) with jurisdiction and not with the federal Department of Interior (DOI), Department of Agriculture, or Department of Housing and Urban Development (unless the federal agency has a specific action to take, such as DOI approval of a conversion of land acquired using Land and Water Conservation Funds).

(2) Section 6(f) Evaluations

(a) WSDOT Discipline Report, Outdoor Recreation Property (6(f))

The Discipline Report Checklist for studies done in compliance with the Land and Water Conservation Funds Act, Section 6(f) for conversion of IAC Outdoor Recreation Property is attached as **Exhibit 455-2**. Detailed WSDOT guidance is available on WSDOT's ESO Compliance Program web site:

http://www.wsdot.wa.gov/environment/compliance/ Section6f_guidance.htm

Criteria for determining Section 6(f) impact are located within the informational guidance and electronic links provided at the above Section 6(f) web site. The impact determination and mitigation negotiations are always coordinated with FHWA and the agency with jurisdiction over the property. When the analysis of project actions determines that no Section 6(f) impacts are anticipated, this assumption should be briefly stated in the NEPA EIS or EA. A technical memo for the project file should explain the determination of no impact.

Many Section 6(f) impacts, involve IAC properties, but not all grant assistance provided from IAC constitutes Section 6(f) designation. Site-specific properties of each location must be investigated thoroughly. An explanation and graphic representation of the IAC involved properties in Washington is on the web site cited above, or by direct link:

http://www.iac.wa.gov/maps/presentation/map.asp?ScreenWidth= 1024&MapType=2a&Cmd=INIT&AreaType=County&Area=ALL

See also Section 520.11, referring to situations when the Section 6(f) evaluation may be initiated during PS&E.

(b) FHWA Guidance

FHWA's online Environmental Guidebook contains documents on wilderness areas and Section 6(f) properties. Available on FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Wilderness Areas/Section 6(f) Properties.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/V1ch16.htm

(3) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets relevant to public lands include major public lands, national forests, national parks, national recreation areas, and public land survey. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

455.06 Permits and Approvals

Permits relating to Public Lands are addressed in the following sections:

Federal

• Section 520.11 – Section 6(f) Approval

 Section 520.13 – Other Federal Approvals (Authorization for Use of Federal Land from USFS or BLM)

State

- Section 540.17 Easement over Public Land
- Section 540.18 Forest Practices Approval
- Section 540.19 Surface Mining Reclamation Permit
- Section 540.20 Survey Monument Removal Permit

455.07 Non-Road Project Requirements

Ferry, rail, airport, and non-motorized transport systems are generally subject to the same policies, procedures, or permits that apply to road systems.

455.08 Exhibits

Exhibit 455-1 – Discipline Report Checklist, Public Lands, Section 4(f).

Exhibit 455-2 – Discipline Report Checklist, Outdoor Recreation Property, Section 6(f).



Discipline Report Checklist Public Lands, Section 4(f)

Projec	t Name:	·			Job Number:			
Contac	ct Name	e:						
Date R	Received	d:]	Date Reviewed: Reviewer:			
(SAT	= Satisf	actory;	INC =	Incomp	lete; MIS = Missing; N/A = Not Applicable)			
Answe	Answers are required for questions which have no N/A box.							
I.	I. Introduction							
Report	ts shoul	d includ	le a brie	ef introd	duction which identifies:			
SAT	INC	MIS	N/A					
				A.	The basic requirements of Section 4(f).			
				B.	The Section 4(f) resource(s) affected.			
				C.	The alternatives under consideration that would affect the Section 4(f) resource(s).			
II.	Affec	ted En	vironn	nent				
Report should include a description of each Section 4(f) resource:								
Report	t should	include	e a desc	ription	of each Section 4(f) resource:			
Report SAT	t should INC	include MIS	e a desc N/A	ription	of each Section 4(f) resource:			
-				ription A.	of each Section 4(f) resource: A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property(ies).			
SAT	INC	MIS	N/A		A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f)			
SAT	INC	MIS	N/A	A.	A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property(ies). Size (acres or square feet) and location (maps, sketches,			
SAT		MIS	N/A	A. B.	A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property(ies). Size (acres or square feet) and location (maps, sketches, etc.) of the affected Section 4(f) property(ies). Type of property(ies) (recreation, historic, etc.) and			
SAT		MIS	N/A	A. B. C.	A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property(ies). Size (acres or square feet) and location (maps, sketches, etc.) of the affected Section 4(f) property(ies). Type of property(ies) (recreation, historic, etc.) and ownership (city, county, state, etc.). Function of or available activities on the property(ies)			
SAT	INC	MIS	N/A	A. B. C. D.	A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property(ies). Size (acres or square feet) and location (maps, sketches, etc.) of the affected Section 4(f) property(ies). Type of property(ies) (recreation, historic, etc.) and ownership (city, county, state, etc.). Function of or available activities on the property(ies) (swimming, golfing, baseball, etc.). Description and location of all existing and planned			

SAT	INC	MIS	N/A		
				H.	Applicable clauses affecting the ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture.
				I.	Unusual characteristics (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property(ies).
III.	Impa	cts			
_			-		the environmental impacts during construction for each perty (quantify where possible):
SAT	INC	MIS	N/A		
				A.	Acquisition of land (acres or square feet), facilities (include map), and functions.
				B.	Access.
				C.	Aesthetics.
				D.	Air quality.
				E.	Noise (quantified).
				F.	Water.
				G.	Land use in the vicinity.
				H.	Functions of or available activities on the property.
-		l identif each So	•		the environmental impacts during operation for each perty:
SAT	INC	MIS	N/A		
				I.	Acquisition of land (acres or square feet), if different from construction impact, and facilities (include map).
				J.	Access.
				K.	Aesthetics.
				L.	Air quality.
				M.	Noise (quantified).
				N.	Water.
				O.	Land use in the vicinity. Included impacts of growth induced by project.
				P.	Functions of or available activities on the property.
				Q.	Identified and evaluated location and design alternatives which would avoid each and all Section 4(f) property(ies).

SAT	INC	MIS	N/A		
				R.	Explained whether any avoidance alternatives which were eliminated from further detailed study are "feasible and prudent," and, if not, stated the reasons why.
				S.	Discussed all possible measures which are available to minimize the impacts of the proposed action on the Section 4(f) property(ies), commitments made and monitored procedures to minimize harm. (Detailed discussions of mitigation measures in the EIS or EA may be referenced and appropriately summarized, rather than repeated. (T 6640.8A, p. 46.)

IV. Studies and Coordination

Include discussion of specific coordination with the following agencies and persons concerning avoidance alternatives, impacts, measures to minimize harm, joint development (if applicable) with the following as appropriate:

SAT	INC	MIS	N/A		
				A.	State Historic Preservation Officer (SHPO).
				B.	Local officials with jurisdiction.
				C.	Historic societies, museums, or academic institutions [DOT 5610.1C, Attachment 2, paragraph 5(a)].
				D.	Historic consultant.
				E.	Archaeological consultant.
				F.	Advisory Council on Historic Preservation (ACHP).
				G.	Indian tribes.

Include the determination that there are no feasible and prudent alternatives (not normally addressed in the Draft Section 4(f) Evaluation (T 6640.8A, p. 46).

Final Section 4(f) Evaluation: (Required when the preferred alternative includes the use of Section 4(f) property(ies)).

Include all the information required for the draft evaluation.

Include discussion of why there are no feasible and prudent alternatives for each Section 4(f) property involved. The discussion shall include supporting information that demonstrates that "there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts, or community distribution resulting from such alternatives reach extraordinary magnitudes" (23 CFR 771.135(a)(2)).

Use the language in the previous paragraph to introduce the supporting evidence.

٧.	Feasibility and Prudence	
----	--------------------------	--

Describe all the following factors that apply to the feasibility and prudence of the alternatives:

SAT	INC	MIS	N/A		
				A.	Unique engineering or construction problems.
				B.	Extraordinary costs.
				C.	Community disruption of extraordinary magnitude.
				D.	Severe adverse environmental impacts.
				E.	Greater impacts on this or other 4(f) lands.
				F.	Failure to fulfill urgent public needs.
				G.	Alternatives that avoid 4(f) lands cause deterioration of property or prevent development.
				H.	Other truly unusual factors.
				I.	Included a discussion of the basis for concluding that the proposed action includes all possible planning to minimize harm to the Section 4(f) property.
				J.	If there are no feasible and prudent alternatives which avoid the use of Section 4(f) land, the final Section 4(f) evaluation demonstrated that the preferred alternative is a feasible and prudent alternative with the least harm on the Section 4(f) resources after considering mitigation to the Section 4(f) resources.
				K.	Included copies of all formal coordination comments received and an analysis and response to any questions raised.
				L.	If Section 6(f) land is involved, documented the Interagency Committee for Outdoor Recreation and National Parks Service's position on the land transfer.
Includ	e the fo	llowing	conclu	iding st	atement:
SAT	INC	MIS	N/A	C	
				M.	Based upon the above considerations, there is no feasible, and prudent alternative to the use of land from the (Section 4(f) property) and the proposed action includes all possible planning to minimize harm to the (Section 4(f) property) resulting from such use.

VI.	Summary	

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the EIS with only minor modification.

The summary should include:

SAT	INC	MIS	N/A		
				A.	The objectives of the project.
				B.	Current land use in project area.
				C.	Unique problems requiring use of 4(f) property.
				D.	Impacts of all alternatives including the no-build alternative.
				E.	Recommended mitigation.
				F.	Comparison of alternatives based on impacts and cost effectiveness of mitigation.
				G.	Agency coordination.
Gener	al Com	ments:			

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Outdoor Recreation Property, Section 6(f)

Projec	t Name:	<u> </u>		Job Number:					
Contac	ct Name	e:							
Date R	Received	d:		Date Reviewed: Reviewer:					
(SAT	= Satisf	actory;	INC = 1	ncomplete; MIS = Missing; N/A = Not Applicable)					
Answe	Answers are required for questions which have no N/A box.								
I.	Overv	iew ar	nd Coc	rdination					
SAT	INC	MIS	N/A						
				A. Determined if the project uses or impacts Outdoor Recreation property as described in the <i>Environmental Procedures Manual?</i>					
				B. Identified owner of Recreation property.					
				C. Coordinated with owner of Outdoor Recreation property.					
				D. Written agreement from owner to relinquish Recreation property included.					
				E. Coordinated with WSDOT Real Estate Services for appraisal of property.					
				F. Coordinated with owner to identify replacement property of equal value.					
				G. Coordinated with IAC and owner concerning conversion package.					
				H. Prepared conversion package and submitted to owner (sponsor).					
				1. Sponsor submits conversion package to IAC.					
				2. IAC staff reviews conversion package.					
				3. If federal 6(f) funds involved, IAC submits conversion package to National Park Service for review/concurrence.					
				4. IAC sends approved conversion package to sponsor.					
				Sponsor signs conversion package and returns one copy to IAC.)				

SAT	INC	MIS	N/A	
				Sponsor sends copy of signed conversion package to WSDOT region.
				7. IAC will coordinate with sponsor and allow conversion to proceed.
				 I. Sent copy of signed conversion package to OSC and Region Real Estate Services.
				J. Sent copy of signed conversion package to Region Real Estate Services.
				K. Sent copy of signed conversion package to OSC Environmental.
Genera	al Com	ments: _		

February 1999

456 Historic, Cultural, and Archaeological Resources

456.01	Introduction
456.02	Applicable Statutes and Regulations
456.03	Policy Guidance
456.04	Interagency Agreements
456.05	Technical Guidance
456.06	Permits and Approvals
456.07	Non-Road Project Requirements
456.08	Exhibits

Key to Icons



Web site.*



Interagency agreement.

456.01 Introduction

This chapter includes information needed for projects that will affect historic, cultural, and archaeological resources, including historic highway bridges. Requirements often overlap with those for projects affecting public lands, requiring a Section 4(f) evaluation (Section 411.12 and Chapter 455). See also Chapter 459 for related information on visual quality impacts.

Projects that involve impacts to historic or archaeological resources are subject to state and federal regulations. This chapter summarizes the compliance process and may also be used as guidance by consultants for typical projects where a consultant is employed.

It is WSDOT policy to avoid any adverse impacts, where practical, to cultural resources in planning, constructing, operating, or maintaining the state's transportation system. These resources include prehistoric and historic archaeological sites, historic structures, and traditional cultural properties. If it is not practical to avoid adverse impacts, WSDOT will minimize and mitigate the impacts. This WSDOT policy is implemented by the federal Section 106 review process for all projects, whether or not there is a federal nexus.

The most current information on cultural resources is online at:



http://www.wsdot.wa.gov/environment/culres/default.htm

(1) Summary of Requirements

The major legislative mandates and requirements discussed in this chapter are:

Historic Properties – The Historic Preservation Act, Section 106, applies to transportation projects affecting a historic property listed on or eligible for listing on the National Register of Historic Places. Special provisions apply to use of historic bridges for highway projects.

Archaeological Resources – The Archaeological Resources Protection Act applies to projects affecting archaeological resources on Tribal or Federal land.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

ACHP Advisory Council on Historic Preservation

CRS Cultural Resource Specialist

CTED Washington State Department of Community, Trade and Economic

Development

OAHP Office of Archaeology and Historic Preservation

SHPO State Historic Preservation Officer
TCP Traditional Cultural Properties
THPO Tribal Historic Preservation Officer

(3) Glossary

See Exhibit 456-1 for a glossary of terms related to historic, cultural and archaeological resources. See Appendix B for a general glossary of terms used in the EPM.

456.02 Applicable Statutes and Regulations

Projects that involve impacts to historic, cultural, or archaeological resources are subject to the statutes and regulations summarized below; permits and approvals required pursuant to these statutes are listed in **Section 456.06**. Laws and regulations that apply to historic and archaeological sites on public lands are listed in **Section 455.02**. See **Appendix D** for a list of statutes referenced in the EPM.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on historic and cultural resoures are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). The CEQ rules include sections on urban quality, historical and cultural resources, and design of the built environment. For details on NEPA procedures, see Chapter 410 and Chapter 411, particularly Section 411.12.

(b) Department of Transportation Act, Section 4(f), and Implementing Regulations

Protection of certain public lands and National Register eligible or listed historic properties was originally mandated in Section 4(f) of the 1966 Department of Transportation Act. This section was repealed in 1983 and later codified without substantive changes as 49 USC 303. However, it is still referred to as Section 4(f) in the FHWA Environmental Procedures (23 CFR 771) and popularly by many WSDOT staff.

Section 4(f) declares it a national policy to preserve, where possible, "the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Highway projects can cross these special lands only if there is no feasible and prudent alternative and the sponsoring agency demonstrates that all possible planning to minimize harm has been accomplished. Visual resource mitigation may be

required in certain instances as part of these plans. For details, see **Section 455.02**.

(c) Historic Preservation Act, Section 106, and Implementing Regulations

The National Historic Preservation Act of 1966, as amended (16 USC 470f, Section 106), requires federal agencies including FHWA to take into account the effects of a project on properties included in or eligible for inclusion in the National Register of Historic Places. Prior to approving the project, the agency must give the Advisory Council on Historic Preservation a reasonable opportunity to comment. Federal agency heads must, to the maximum extent possible, complete planning and actions necessary to minimize harm to any National Historic Landmark.

This "Section 106 process" is designed to identify potential conflicts between the historic preservation concerns and the needs of federal agency undertakings, and to resolve such conflicts. The agency official must consult with the State or Tribal Historic Preservation Officer (SHPO/THPO) and other interested persons during the early stages of planning. Properties must be adequately identified and considered. Historic bridges are one type of property likely to be impacted by transportation projects.

The implementing regulations of the Advisory Council on Historic Preservation, Protection of Historic Properties (36 CFR 800), focus on preservation options including avoidance, rehabilitation, modified use, marking, and relocation. New regulations took effect January 11, 2001.



Click on Working with Section 106.

Or by direct link:

http://www.achp.gov/work106.html

(d) Surface Transportation and Uniform Relocation Assistance Act of 1987, Section 123(f)

In 1987, a new provision in Section 123(f) of this statute created a fund for preservation or mitigation of historic bridges (23 USC 144 (o)). It mandates that states give special consideration to rehabilitating, reusing, and preserving historic bridges. STURAA legislation makes funds, which otherwise would have been used for bridge demolition, available for actions to preserve a historic bridge or reduce the impact of a project on a historic bridge. For example, if a historic bridge can be retained by relocation, it could be part of a federal-aid proposal. Reasonable costs associated with relocation and preservation of the historic integrity of the bridge are eligible for reimbursement, under 23 USC Section 109(h) and Section 144, with reference to cost of demolition. See Section 456.05(3)(f).

The application of this act is described in an FHWA memorandum, FHWA Guidance on the Consideration of Historic and Archaeological Resources

in the Highway Project Development Process, (December 23, 1988). This document is online via FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Historical and Archaeological Preservation, then name of document.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v2ch10.htm

(e) DOT Design, Arts, and Architecture Program

To further implement NEPA, Sections 106 and 110 (16 USC 470(f)(h-2)) and Section 4(f), the U.S. Department of Transportation inaugurated its Design, Arts, and Architecture in Transportation Program in 1978. Outlined in DOT Order 5610.1C, revised Attachment 2, the program requires that environmental impact statements document the consideration of design quality in projects which involve public use areas or sensitive locations such as parks or historic districts.

(f) Intermodal Surface Transportation Efficiency Act (ISTEA)

ISTEA (1991) established a Transportation Enhancement Program (23 U.S.C. 101(g)-133(b)), which offers broad opportunities and federal dollars to take unique and creative actions to integrate transportation into communities and the natural environment. Eligible activities include: acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, landscaping and other scenic beautification, historic preservation, preservation of abandoned railway corridors (including the conversion and use for pedestrian or bicycle trails), control and removal of outdoor advertising.

Historic bridge preservation and rehabilitation projects qualify for federal funding under several enhancement categories. Funding may be used for specific transportation projects and also for preservation activities. This legislation provides for more flexible design standards in order to preserve historic structures.

(g) Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

This Act continues the national transportation policy directions established by ISTEA and TEA-21. SAFETEA-LU was enacted on August 10, 2005, as Public Law 109-59. It authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

SAFETEA-LU also funds the Scenic Byways Program created under 23 U.S.C. 101(g)-133(e). FHWA has set criteria for designating scenic byways, based upon their scenic, historic, recreational, cultural, archaeological, and/or natural intrinsic qualities. For details on scenic byways, see FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Scenic Byways.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v2ch14.htm For detail on transportations enhancements see:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Transportation Enhancements.

Or by direct link:

http://www.fhwa.dot.gov/environment/te.htm

(h) Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 (ARPA) applies to archaeological resources on tribal lands and non-tribal lands under federal jurisdiction; for example: the Bureau of Land Management (BLM), National Park Services, or U.S. Army Corps of Engineers (Corps). Under this legislation, WSDOT must apply for and obtain a permit when such resources could be impacted by a project (see Section 520.05).

(i) Other Related Federal Statutes

For references on the following other federal statutes relating to historic, cultural, and archaeological resources, see the glossary, **Exhibit 456-1**:

- American Indian Religious Freedom Act (1978)
- Antiquities Act (1906)
- Archaeological and Historic Preservation Act (1974)
- Archaeological Resources Protection Act (1979)
- Economic Recovery Tax Act (1981)
- Native American Graves Protection and Repatriation Act (1990)
- Surface Transportation and Uniform Relocation Assistance Act (STURAA, 1987)
- Tax Reform Act (1986)

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on historic and cultural resources are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapter 410 and Chapter 411, particularly Section 411.12.

(b) Abandoned and Historic Cemeteries Act

(c) Indian Graves and Records Act

(d) Archaeological Sites and Resources Protection Act

The Abandoned and Historic Cemeteries Act (RCW 68.04-05) and Indian Graves and Records Act (RCW 2744) protect Indian graves and historic cemeteries, making disturbance of such sites, without a permit, a Class C felony. The Archaeological Sites and Resources Protection Act (RCW 27.53) protects archaeological resources.

456.03 Policy Guidance

(1) Transportation Commission

The Transportation Commission's Policy Catalog contains specific policies on heritage resources in Section 6.3.9, which state that the transportation system's interest in preserving, enhancing, and interpreting heritage resources is to:

- Provide access and directional signing to resources identified by federal, tribal, state and local agencies.
- Assist in preserving and enhancing resources within transportation corridors or part of the traveling experience along a corridor.
- Avoid, minimize, or mitigate impacts of transportation projects on heritage resources.
- Cooperate in promoting heritage resources to aid tourism and achieve economic benefits.
- Commit state funding to leverage other funds to preserve, enhance, and interpret heritage resources within transportation corridors.

(2) WSDOT Roadside Classification Plan

Under this 1996 plan, WSDOT considers natural environment and heritage resources contained within the state highway roadsides as valuable to roadside functions and a conspicuous symbol of the state's character. The plan gives implementation guidance for the design and maintenance of roadside treatments.

(3) Local Plans and Policies

City and county comprehensive plans and parks and recreation plans may contain policy and plan guidance on historic resources, sites, and/or structures of local importance. Local governments may also maintain inventories of historic sites. These documents should be considered in preparing the cultural resources section of environmental documents. See *Local Agency Guidelines* (M 36-63) Chapter 24.

http://www.wsdot.wa.gov/

Click on Search, then Site Index, then H, then Highways and Local Programs, then LAG.

Or by direct links:

http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.HTM

456.04 Interagency Agreements

See Appendix E for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-making Process.

(1) Nationwide Programmatic Agreement on Historic Properties

This agreement is intended to reduce the time spent by state transportation agencies in implementing transportation enhancement activities, including historic preservation projects. However, the agreement is not mandatory, and state agencies are authorized to develop their own agreements (see below).

National Programmatic Agreement among the Federal Highway Administration (FHWA), National Conference of State Historic Preservation Officers (SHPOs), and the Advisory Council on Historic Preservation (ACHP) for Implementation of Transportation Enhancement Activities (June 11, 1997).

The agreement can be accessed via the ESO Compliance Branch web site:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

(2) State Programmatic Agreement on Historic Properties

A programmatic agreement has been developed among the FHWA, WSDOT, Advisory Council of Transportation, and the WA SHPO regarding implementation of Section 106 requirements for federal-aid highway projects in Washington.

Programmatic Agreement among the Federal Highway Administration, the Washington State Department of Transportation, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Officer Regarding Implementation of the Federal Aid Highway Program in Washington State.

The agreement can be accessed via the ESO Compliance Branch web site:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

(3) Programmatic Agreement with Confederated Tribes of Umatilla Reservation This agreement among the FHWA Washington Division, WSDOT South Central Region, and the Confederated Tribes of the Umatilla Reservation (CTUR) is to

Region, and the Confederated Tribes of the Umatilla Reservation (CTUR) is to ensure coordination and cooperation on all applicable WSDOT undertakings within CTUR ceded lands in the state of Washington that potentially affect historic and/or traditional cultural properties. The March 2005 agreement includes consultation for federally aided projects subject to Section 106 of the National Historic Preservation Act, and coordination for non-federal activities. Consultation and coordination are to begin at the earliest possible stage and continue through planning, scoping, design, construction, and operation and maintenance. The agreement is online at:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

Programmatic Memorandum of Agreement among the Federal Highway Administration Washington Division, the Washington State Transportation Department South Central Region, and the Confederated Tribes of the

Umatilla Reservation for Coordination and Consultation on State Transportation Activities. March 10, 2005.

456.05 Technical Guidance

This section provides a roadmap for completing the cultural resources requirements. Following a detailed description of the sequence of steps for Section 106 compliance – first for cultural resources in general and second for the specific case of historic bridges – the Discipline Report is discussed as WSDOT's vehicle for compiling the results of the Section 106 activities. The section also describes the relationship of Section 106 to Section 4(f) evaluations, additional FHWA guidance, CTED resources, and a General Special Provision to include in construction contracts.

(1) Annual Project Review

Annual meetings with Regions are held to review and identify proposed projects and construction programs for the next biennium that might affect historic properties. The meeting is set up by the WSDOT Environmental Services Office (ESO) Cultural Resources Specialist (CRS), and includes personnel from the Region Environmental and Project Development sections, an FHWA representative, an OAHP representative, and Tribal representatives.

In general, the review should include projects: (1) for which new right-of-way will be required, (2) for which a stream or other watercourse enters or crosses the right of way, (3) which involve ground disturbance, or (4) where historic properties are known or believed likely to exist. The Region Environmental Manager and the CRS staff, in consultation with the FHWA, OAHP and Tribal representatives, identify those projects that require cultural resource studies.

(2) Section 106 Compliance

WSDOT, on behalf and in coordination with the Federal Highway Administration (FHWA), carries out certain requirements of 36 CFR Part 800 per the July 18, 2000 Programmatic Agreement. As required for Section 106 compliance, identification of the Area of Potential Effects (APE) and subsequent cultural resources surveys are done for all projects having a federal nexus (e.g. permit, signatory, funding).

Representatives and local agencies should work through the your WSDOT Regional Highways and Local Programs contact for Section 106 compliance. Refer to WSDOT's *Local Agency Guidelines* (M36-63) Chapter 24 at:

http://www.wsdot.wa.gov/TA/Operations/LAG

Except where noted, this procedure applies to all projects that may impact a historical or cultural resource, regardless of funding source. Use the procedures below, along with the federal regulations, as guidance for Section 106 compliance. Exhibit 456-2 includes Section 106 eligibility criteria.

Figure 456-1 illustrates the sequence and timelines involved in the Section 106 process. Special procedures for bridges are in Section 456.05(3).

When designed to do so, determinations and agreements made under the Section 106 review process may also satisfy Section 4(f) requirements for historic properties. Refer to **Section 411.12** and **Section 455.05** for further information on Section 4(f) and Section 106 evaluations, particularly FHWA's

programmatic Section 4(f) evaluations for historic sites and historic bridges. For help in clarifying the relationships among Section 4(f), Section 6(f), and Section 106, see the ESO's Compliance Branch web site:

 $\begin{tabular}{lll} \uparrow http://www.wsdot.wa.gov/environment/compliance/Section4f_guidance.htm \end{tabular}$

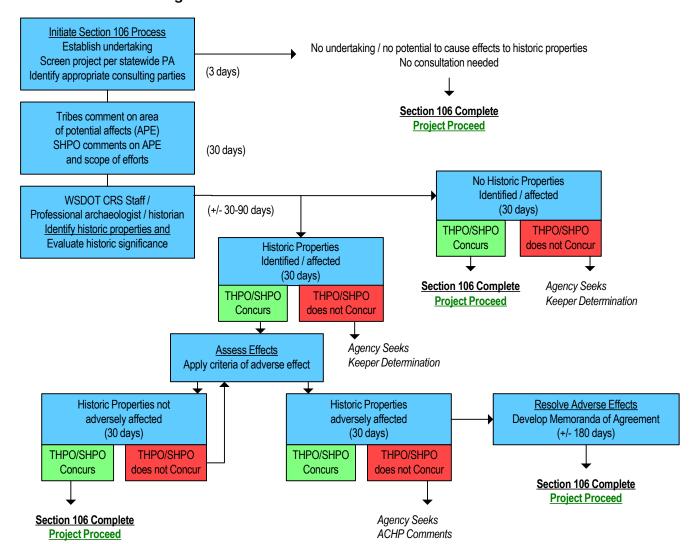


Figure 456-1: WSDOT Section 106 Flowchart and Timelines

Note: Approximate minimum days to complete 106 process indicated in parenthesis. Actual schedule may vary depending on project

(a) Establish Undertaking/Apply Potential Exemption

Review the statewide Programmatic Agreement (PA) dated July 18, 2000 that sets forth the process the FHWA/WSDOT/OAHP and the Advisory Council uses to meet their responsibilities for undertakings pursuant to Section 106 (see Section 456.04). Determine whether your project constitutes an undertaking or meets the exemption stipulations detailed in the PA. If the Region determines the project is included in one of the types of exempted activities listed in the PA, the Region must document this determination in the Environmental Review Summary. The Region must then coordinate with affected federal, state and local agencies, Tribe(s) and interested parties on the project. If FHWA is not the lead agency for the project, this PA will not apply. If the project scope changes after an exemption has been applied (making the exemption no longer applicable), the Section 106 review process must be applied.

(b) Initiate Consultation

Under the revised Section 106 regulations effective June 1, 2001, the FHWA has delegated authority to WSDOT to initiate consultation letters directly to the Tribes. Under previous regulations, this authority could not be delegated and the initiation of consultation had to come from the lead federal agency.

To begin the Section 106 process for a project, the Region initiates consultation by letter with the appropriate Tribal governments, the SHPO and includes project specific documentation. The Region or ESO Cultural Resources staff assume the lead in conducting Section 106 consultation with Tribal governments. FHWA is available to participate with a Tribe to the extent necessary, to ensure the Tribe's meaningful participation in the process.

To begin the Section 106 process, the Region initiates consultation by letter with the appropriate Tribal governments and the SHPO. It is important at this point to also note any other federal agencies that may be involved in the project. If possible, note in writing when initiating consultation which is the lead agency for Section 106 for the project.

The letter should include information about the location and nature of the project, and a statement describing the purpose and scope of the consultation. See sample letters in **Exhibit 446-3**.

Tribe(s) have 30 days after the delivery date of the letter to respond as to whether or not they wish to participate in the proposed project. If a response from the Tribe(s) is not received within days, compliance procedures proceeding the cultural resources study can begin. Tribes do have the option, however, of entering consultation at a later date.

Consultation with the Tribe(s) is encouraged throughout the project. Therefore, continue to keep them informed of the project, unless they have indicated they have no interest or concur with the proposed project. If a project has been inactive for a period of three years or more, the project manager (or designee) will send each tribe it previously consulted with a continuing consultation letter. The letter should include an update of the project's status and restate WSDOT's understanding of the tribe's position on the project (i.e. the tribe previously stated that it did not have an interest in this project; the tribe has cultural resources concerns associated with this project, etc).

(c) Determine the Area of Potential Effect

Use the guidelines for determining the Area of Potential Effect (APE) (Exhibit 456-4) when starting the consultation process with the SHPO, THPO, or Tribes to develop the necessary background information. These procedures only apply to WSDOT efforts in identifying the APE.

When complete, the Region should provide two copies of documentation detailing the APE to each identified Tribe, the SHPO, and the FHWA. The documentation should contain a detailed project description, legal description, vicinity map, photos, and ages of any structures present, if known. Tribes must be given the opportunity to concur on the APE prior

to beginning the cultural resources survey. Meetings held on-site with the Tribes and the consultant are an effective way to get active Tribal involvement, thereby expediting the Section 106 process. It is extremely important to make a good faith effort to involve the Tribal parties early in the process.

(d) Develop the Cultural Resources Survey Scope of Work

It is important that the scope of work for the cultural resources survey be complete. If the scope of work does not follow the guidelines as shown in **Exhibit 456-5**, it will need to be reviewed by the CRS staff prior to acceptance.

(e) Prepare Cultural Resources Survey

Exhibit 456-5 contains WSDOT's detailed guidance for preparing a cultural resources survey. The Environmental Services Office (ESO) cultural resource specialist has in-house and on-call consultant agreements that can be used to complete the survey. The survey must be conducted by a professional (consultant or in-house staff) who meets the Secretary of the Interior's standards. The Region provides the consultant with a full description of the proposed project and its limits – staked on the ground and mapped, if possible – so the survey can be conducted accurately. A background research through the records stored at OAHP is required.

The report should be prepared even if no historic properties are found during the survey, and should document places examined that did not contain historic properties. Justification for negative findings are as important as the documentation of located resources. For additional information, refer to National Register Bulletin No. 24: *Guidelines for Local Surveys: A Basis for Preservation Planning*, available through the CRS. The document is online at:

http://www.oahp.wa.gov/pages/Documents/documents/CRStandards.pdf

Once the survey is completed, the consultant submits the cultural resources survey report) to the Region with copies for the SHPO, all relevant tribes, and any other interested parties. In some cases, additional surveys or other field testing may be needed to identify and evaluate potential historic properties.

The Region provides the survey report to the ESO cultural resource specialist staff to review and ensure Section 106 compliance has been met. The cultural resource specialist staff then provides copies to the Tribes for review and comment within 30 days. These comments are compiled and submitted with the survey report to the SHPO and other interested parties as appropriate, for their review. Each party is afforded thirty (30) days of review time. SHPO coordination is required for federal aid projects, but it is done as a matter of course for all projects.

(f) Discipline Report

The Cultural Resources Survey is the discipline report prepared by Regional Offices or Divisions to document environmental studies and

investigations. The discipline reports form the basis of the Environmental Impact Statement (see Section 456.05(4)).

(g) Determine National Register Eligibility

The cultural resource specialist staff evaluates identified cultural resources using the criteria of eligibility set forth in the Section 106 regulations. Depending upon the evaluation and the extent of the project's effects, as well as any Tribal and SHPO comments received, the cultural resource specialist reviews the prepared forms for determining possible eligibility of any resources identified during the survey. Cultural resources determined to be eligible for listing in the National Register of Historic Places are referred to as "historic properties". If no historic properties will be affected by the project, and the SHPO/THPO concurs (SHPO/THPO review is 30 days), the Section 106 review process concludes. Section 106 may restart if unexpected cultural materials are located during project activities.

Criteria for determining eligibility for listing in the National Register of Historic Places are given in **Exhibit 456-2**. For state-funded projects, the evaluation must include historic properties listed in or proposed for inclusion in the national, state (Washington Heritage Register), or local inventories of historic sites.

(h) Determine Project Effect

The cultural resource specialist staff consults with SHPO/THPO and the Region to determine what effect the project will have on any historic properties found in the project area. The effect evaluation is based on the criteria of effect and adverse effect set forth in the Section 106 regulations (36 CFR 800.4 and 800.5). The three possible effect determinations are:

(1) No Historic Properties Affected

A finding of no effect means that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them.

If there is no effect on historic properties, the cultural resource specialist staff coordinates with the SHPO/THPO and provides documentation that supports the finding of no effect. If the SHPO/THPO concurs, the Section 106 review process is concluded. (If unexpected cultural materials are located during project activities, halt work and contact the cultural resource specialist/SHPO/THPO immediately.)

(2) No Historic Properties are Adversely Affected

If the project will affect one or more historic properties, but the effect is not considered adverse, the cultural resource specialist staff obtains the SHPO/THPO's concurrence with the finding of no adverse effect and notifies the FHWA (36 CFR 800.5(c)). For statefunded projects, the CRS staff notifies the SHPO.

(3) Historic Properties are Adversely Affected

If there is an adverse effect on one or more historic properties, the cultural resource specialist consults with the Region, the FHWA, the

SHPO/THPO, interested persons, and the Advisory Council on Historic Preservation to consider how the adverse effects can be reduced, avoided or mitigated. The consultation results in a Memorandum of Agreement (see below).

For state-funded projects, the cultural resource specialist staff consults with the Region, the OAHP, and interested parties on means to resolve adverse effects.

(i) Prepare Memorandum of Agreement

As required by Section 106 regulations (36 CFR 800.6), consultation among the parties results in a Memorandum of Agreement (MOA) outlining measures WSDOT will take to reduce, avoid, or mitigate the adverse effect. In some cases, the consulting parties may agree that no such measures are feasible, but that the adverse effects must be accepted in the public interest.

In the case of an archaeological site, mitigation of adverse effects usually involves excavating the site and publishing a report of excavation. In the case of a standing structure, mitigation measures typically range from simple documentation to moving the structure. Other measures may be appropriate and are developed, case-by-case, in consultation with the SHPO/THPO. The Region may initiate a request to the cultural resource specialist for supplemental consultant work that will require additional funds and an extension of the consultant's schedule and scope of work.

The cultural resource specialist staff prepare the MOA, in consultation with the SHPO/THPO, the Council, interested parties, and the Region. The Regional Environmental Program Manager signs the MOA for WSDOT.

The Advisory Council on Historic Preservation may participate directly in developing the MOA, or WSDOT, via the FHWA, can submit the MOA to the Council for review and comment. The Council can accept the MOA, request changes, or issue written comments.

If an MOA is executed, WSDOT proceeds with the project under the terms of the MOA. The executed MOA becomes part of the project's environmental documentation. In the absence of an MOA, the WSDOT, via the FHWA, must take into account the Council's written comments in deciding whether and how to proceed.

For state-funded projects, WSDOT should consider SHPO's comments in deciding how to proceed.

(3) Section 106 Compliance – Historic Bridges

Section 106 requirements, described in the previous section, also apply to many Washington State highway bridges that are significant for their historical, architectural, or engineering features. For additional Section 106 guidance see Section 411.12(2), and eligibility criteria in Exhibit 456-2.

For projects that may involve structural changes, removal and/or destruction of a historic highway bridge, it is also necessary to complete a Section 4(f) evaluation. When designed to do so, determinations and agreements made under the Section 106 review process can also satisfy Section 4(f) requirements. For

guidance on Section 4(f) evaluations, see Section 411.12(1), Section 455.05(1), and Section 456.05(6), particularly the references to FHWA's Programmatic Section 4(f) Evaluation on Historic Bridges.

Guidance is given in this section for each of the following alternatives:

- (1) preservation in place through repair, rehabilitation, and/or adaptive reuse;
- (2) sale or donation to a responsible party; and (3) documentation and demolition. FHWA encourages preservation under the Intermodal Surface Transportation Efficiency Act (ISTEA) and Surface Transportation and Uniform Relocation Assistance Act (STURRA), which make federal funds are available to states to rehabilitate and otherwise preserve bridges of historical and engineering significance (see Section 456.02).

See Exhibit 456-6 for additional, detailed WSDOT guidance on rehabilitation of historic bridges. See Exhibit 456-7 for the highway bridges currently listed in the National Register, eligible for listing, or nominated for listing; note that Category II bridges are covered under the July 18, 2000 Programmatic Agreement. Exhibit 456-8 gives examples of historic bridge rehabilitation projects. Exhibit 456-9 is a sample MOA, required when a transportation project will affect a historic bridge.

(a) Applicability of Procedures

This guidance applies to historic bridges that are either listed in or eligible for listing in the National Register of Historic Places, or are listed as "Category II" bridges, and also are part of either a federal aid highway system or a state or local highway system. WSDOT policy is to follow these principles and guidelines even when no federal funds, licenses, or other assistance is required.

(b) Historic Bridge Inventory

Exhibit 456-7 is the current inventory of publicly-owned highway bridges listed in, nominated to, or eligible for the National Register, as well as county and state Category II bridges. Almost all bridges in the inventory are over 50 feet long, since bridges shorter than that rarely have engineering or historical significance.

Category II bridges are bridges built before 1941 that are of local historic or engineering significance but not eligible for or listed in the National Register. Before a Category II bridge is replaced, the Region arranges for large-format photographs to be taken of the structure. For guidance, see the Programmatic Agreement in under Stipulation 4 on Historic Bridges (see Section 456.04). If commemorative plaques or markers are associated with the bridge, the Region usually arranges to donate these to the county or local historic preservation association or museum.

The cultural resource specialist staff in WSDOT's Environmental Services Office (ESO) maintains the Historic Bridge Inventory for the state. The historic bridge inventory is updated regularly to facilitate long-range planning. To date, bridges built between 1941 and 1960 have been inventoried. The 2005 update will inventory bridges built from 1961 through 1965, and so on in five-year intervals.

In 1980, OAHP, in cooperation with WSDOT and the Historic American Engineering Record (HAER) of the Department of the Interior, conducted a systematic inventory of historic bridges built prior to 1941 throughout Washington State. The inventory was authorized by the Surface Transportation Act of 1978 (Public Law 95-599) and funded by WSDOT and OAHP. In 1990, WSDOT updated the initial inventory to include bridges built between 1941-50 and in 2001 added bridges built between 1951-60.

(c) Assessing, Selecting, and Documenting Alternatives

Many historic bridges have become or are becoming structurally deficient, physically deteriorated, or functionally obsolete. In order to maintain the transportation network, these bridges often must be replaced with new bridges or rehabilitated to carry out their intended function safely. Sometimes it is feasible to build a replacement bridge on a new alignment, thereby bypassing the old bridge. However, when replacement bridges must be built on an existing alignment, the old bridge is either demolished or moved to another location. Some bridges can be rehabilitated to meet modern structural standards and traffic requirements, while maintaining their historic character. To choose among these alternatives, the process outlined below is recommended. For further guidance on project scoping and preparation of environmental documentation, see Chapter 310, Chapter 410, Chapter 411, and Chapter 455. For assistance, contact the Region Environmental Office or Environmental Services Office.

(1) Preliminary Assessment

Historic bridge rehabilitation and replacement projects can be complex and sometimes controversial. A preliminary planning meeting among representatives from the offices named below may facilitate the planning process.

- WSDOT Region Local Programs Office (if local agency project), Region Design Office, and Region Environmental Office, Bridge and Structures Office, or Environmental Services Office.
- Office of Archaeology and Historic Preservation.
- FHWA (when the project involves federal funds).
- Tribal Historic Preservation Officer or other Tribal representatives

The meeting should occur after the need for the project and a proposed budget are identified. The purpose of the meeting is to discuss appropriate alternatives for the proposed project and eliminate alternatives that are not prudent or feasible.

(2) Review of Alternatives

A management review of possible alternatives should be held to determine whether sufficient information is available to reject some alternatives. If an alternative is selected that does not adversely impact historic features of the bridge, Section 4(f) procedures may not apply.

Alternatives with adverse impacts to the historic bridge:

- The existing bridge is demolished and replaced with a new bridge at the same location.
- Rehabilitation to the existing bridge impairs its historical integrity, as determined by procedures implementing National Historic Preservation Act. (See Exhibit 456-2 for Section 106 Criteria.)

Alternatives that avoid adverse impacts to the historic bridge:

- No Build.
- Build a new structure at a different location without affecting the historic integrity of the old bridge, as determined by procedures implementing the National Historic Preservation Act (NHPA).
- Rehabilitate the historic bridge without affecting the historic integrity of the structure, as determined by procedures implementing the NHPA.

(3) Determination of Effect

If historic bridges that are eligible for or already listed in the National Register are found in the project area, the cultural resource specialist staff consults with the SHPO/THPO and the Region to determine what effect the project will have.

- Known historic properties. Conduct a cultural resource analysis of alternatives to determine the effect of the project. (See Exhibit 456-2 for Section 106 Criteria and Section 456.05(2) for analysis guidelines.) For historic bridges, the project manager, with the assistance of the cultural resource specialist staff, assesses potential effects to the bridge according to the criteria of adverse effect.
- Historic structure discovered during study. The cultural resource specialist staff evaluates the historic structure using the criteria of eligibility and effect, and consults with the SHPO/THPO and the Region to consider ways to avoid or mitigate adverse effects. The Regional Environmental Program Manager or cultural resource specialist makes a determination of effect and requests concurrence from SHPO/THPO. If the effect is adverse and there is no prudent or feasible alternative, the cultural resource specialist staff, FHWA, and SHPO/THPO develop an MOA to identify appropriate measures to mitigate adverse effects.
- Determination of no adverse effect. If it is determined and documented that project alternatives do not adversely affect the

historic integrity of the bridge, Section 4(f) procedures may not apply.

(4) Environmental Documentation – NEPA, 4(f), 106

When a bridge that is listed or eligible for inclusion in the National Register of Historic Places must be demolished, or when rehabilitation will impair its historic integrity, appropriate environmental documentation must be prepared. This may include an Environmental Impact Statement (EIS) or Environmental Assessment (EA), and Section 4(f) and Section 106 reports (see Section 411.12, Section 455.05, and Section 456.05(6)). Further guidance is online at:

http://www.wsdot.wa.gov/environment/compliance/ Section4f guidance.htm

A MOA specifying measures to avoid or reduce the adverse effects of the project on the historic bridge, may be executed as a part of the environmental process. The MOA becomes part of the environmental document. (See Exhibit 456-9 for a sample MOA.)

If the decision is made to select an alternative that has no effect on the historic bridge, document the conclusion in the Final Environmental Impact Statement.

(d) Preservation Alternatives

If a bridge remains in place, it may be preserved in three ways: by rehabilitation allowing continued highway use, by conversion to an alternate use, or by continued deterioration (either of the latter two options may constitute an adverse effect under 36 CFR FR 800.5).

(1) Rehabilitation

A bridge may be rehabilitated to maintain its historic features. Consider other alternatives only when on-site rehabilitation is neither feasible nor prudent. See Exhibit 456-6 for detailed rehabilitation guidelines on structural upgrading, geometric modifications, and materials repair and maintenance. See Exhibit 456-8 for examples of historic bridge rehabilitation projects, such as the Grays River Covered Bridge in Wahkiakum County, which was built in 1905 and rehabilitated in 1989.

The general rehabilitation guidelines below are summarized from *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* and TRB's *Guidelines for Rehabilitation of Historic Bridges* (available through WSDOT ESO's Cultural Resources Specialist).

- Make every reasonable effort to continue the historic bridge in useful transportation service. Give primary consideration to on-site rehabilitation.
- Respect the original historically significant qualities of a bridge, its site, and its environment. Avoid removing,

concealing, or altering any historic material when possible. Avoid proposed alterations that have no historical basis and that seek to create a false historical appearance. Wherever possible, make additions or alterations in such a manner that their subsequent removal will not impair the essential form and integrity of the bridge.

- Changes that may have taken place in the course of time may
 be evidence of the history and development of a bridge, its site,
 and its environment. Recognize and respect that these changes
 may have acquired significance in their own right.
- Repair rather than replace deteriorated structural members and architectural details. If replacement is necessary, match new materials to original materials being replaced in design, color, texture, and other visual qualities. Use surface cleaning techniques that will not damage historic materials.
- If rehabilitation is not possible, consider a non-vehicular (intermodal) transportation use of the structure at its original site or at a new location. This may involve marketing the structure to a responsible party for such an adaptive use. The marketing process is required in cases where demolition is proposed as an alternative. (See "Marketing" later in this section.)
- If the existing structure cannot be rehabilitated and reused, then it must be documented and replaced. Consider contemporary designs for new bridges located in historic Regions and contemporary designs for proposed additions and alterations to historic bridges: these designs shall be compatible with the size, scale, visual quality, and character of the historic bridges, Region, and environment.

(2) Conversion to Alternative Use

Conversion to an alternate use, preferably a transportation use, is the second preservation option. Bridges that continue to serve transportation purposes on less demanding public roads may continue to be eligible for federal highway funding. Historic bridges also can be converted to a non-vehicular use such as pedestrian walkway or bikeway, or non-transportation uses such as craft centers, museums, restaurants, or housing.

(e) Marketing (Sale or Donation)

STURAA legislation requires that, prior to demolition, historic bridges must be offered for sale or donation to a state or local government agency or responsible private party interested in preserving the bridge for adaptive uses or transportation purposes. To the extent permitted by law and department policy, WSDOT will cooperate with other agencies and private entities that seek to adapt a bridge to non-transportation uses, but it will not actively pursue non-transportation alternatives. Refer to WSDOT

Engineering Publication 2601, *Right of Way*, for further guidance pertaining to transfers or marketing of surplus historic bridges.

(1) Marketing Plan

Where demolition is being considered as the preferred alternative, prepare a marketing plan (in coordination with Region Real Estate Services, SHPO/THPO, FHWA, and Council). The plan should describe the availability of the bridge for other uses including nonpublic or nonmotorized vehicular transportation. The marketing plan shall:

- 1. Be prepared by the current owner.
- 2. Contain a summary statement of the historic significance of the structure, existing structural conditions and needed repairs, estimated costs for rehabilitation alternatives, potential traffic or nontraffic uses and what preservation work is needed, structural dimensions, maintenance requirements, and location map.
- 3. Describe public funding available to the recipient for relocation and/or rehabilitation work. Reasonable rehabilitation and/or relocation costs, when the bridge is to serve other than motorized public traffic, are reimbursable up to the estimated cost of demolition. Any additional cost will be the responsibility of the recipient. In other words, the FHWA and the current owner of the structure are responsible to provide funds up to the estimated cost of demolition, rehabilitation, and/or relocation. If the recipient proposes to relocate the structure for motorized use and would be eligible for federal aid, reimbursement can be made without reference to demolition.
- 4. State that recipients must agree to:
 - Provide a comprehensive plan for the preservation and future use of the structure, including any desired modification and estimated cost of rehabilitation.
 - Maintain the structure and the features that give it historic significance according to prescribed standards.
 - Assume all future legal and financial responsibility for the structure, including "hold harmless" agreements to the current owner, WSDOT, and FHWA, and the posting of a performance bond.
 - Provide proof of their ability to assume the financial and administrative responsibilities of bridge ownership throughout its existence.
- 5. Note that any bridge preserved with federal funding shall thereafter not be eligible for any other highway funds pursuant to Public Law 100-17, Section 123(f) (Historic Bridges).
- 6. Provide for advertising the availability of the bridge to interested parties for at least 60 days prior to decision to remove or demolish the structure. Within the time period, potential recipients should forward proposals on the structure to the bridge owners. Longer response periods may be considered for more complex projects. Shorter periods may be possible with approval by SHPO/THPO, WSDOT, and FHWA. Advertising guidelines are:

- Develop advertisements to be placed in newspapers and other media. They should include the structure location, type, dimensions, existing condition and needed repairs, and a date by which interested parties should present their proposed plan. All ads should state the estimated cost of demolition, the availability of public funds, potential options for rehabilitation or relocation, and maintenance responsibilities.
- Submit the ad copy to WSDOT/FHWA for approval prior to publication in order to ensure compliance with requirements.
- Place the ads in newspapers that cover a regional area. Transportation or historic publications, trade or planning journals, and electronic media should also be considered. Advertising for a minimum of three newspaper circulations, including one Sunday, and also in the area legal paper, is recommended. Send letters soliciting interest to state and local agencies, historical societies, and individuals who have expressed interest. Identify the length of time during which formal proposals will be accepted.
- In the event that no acceptable recipient is found by a goodfaith effort and within the established response period, the marketing requirements will be considered satisfied.

(2) Memorandum of Agreement

Incorporate provisions of the marketing plan in a proposed MOA (see sample in Exhibit 456-9). After obtaining approval from WSDOT Headquarters Real Estate Services, SHPO/THPO, and the Attorney General's Office, submit the MOA to FHWA for approval and forwarding to the Council. The marketing effort will normally be concurrent with preparation of the Final EIS or EA and 4(f) evaluation and should be completed at the same time as the beginning of the Final EIS. The approved MOA and results of the marketing effort are included in the revised EA and Finding of No Significant Impact (FONSI), or the Record of Decision (ROD).

(f) Documentation and Demolition

Demolition should be considered the last resort. However, when it is required, the adverse effect can be mitigated through procedures (such as photos, archives, writings, models, etc.) agreed upon in consultation with SHPO and Advisory Council on Historic Preservation. See Exhibit 456-9.

The level of required documentation will be determined in concurrence with guidance from HAER. Documentation must be complete prior to the beginning of construction. As the bridge owner, WSDOT is responsible for providing the documentation material. That material mainly consists of the photographs, historic documentation, and measured drawings requested by SHPO/THPO.

(4) Discipline Report, Cultural Resources

If an EIS is required under either NEPA or SEPA, it should contain a discussion demonstrating that historic and archaeological resources have been identified and evaluated in accordance with the requirements of 36 CFR 800.4 for each alternative under consideration.

The Cultural Resources Survey is the WSDOT Discipline Report used as the basis for this section of the EIS.

The Discipline Report can be used even when an EIS is not required to summarize and document the results of the Section 106 procedures described above. WSDOT's checklist for preparing the Discipline Report is attached as **Exhibit 456-10**.

The information and level of effort needed to identify and evaluate historic and archaeological resources will vary from project to project as determined by the FHWA after considering existing information, consultation with the State Historic Preservation Officer (SHPO) and the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*.

The information for newly identified historic resources must be sufficient to determine their significance and eligibility for the National Register of Historic Places. The information for archaeological resources must be sufficient to identify whether the resource warrants preservation in place or whether it is important chiefly because of what can be learned through data recovery. Where archaeological resources are not a major factor in the selection of a preferred alternative, the determination of eligibility for the National Register of newly identified archaeological resources may be deferred until after circulation of the draft EIS.

(5) Procedures for Discovery During Construction

Use the General Special Provisions in the contracts for highway construction projects pertaining to Archaeological and Historical Objects, and Archaeological and Paleontological Salvage for treatment of cultural resources that may be encountered during construction. See Exhibit 620-3 in Chapter 620, Environmental Procedures during Construction. The most current information on unanticipated or inadvertent discovery during construction is online at:

http://www.wsdot.wa.gov/environment/culres/default.htm

(6) Section 4(f) Evaluations

The Section 4(f) evaluation is a separate analysis of impacts to covered resources that could result from one or more alternatives being considered for a transportation project. For some historic and archaeological properties, including historic bridges, a Section 4(f) evaluation may be required in addition to a Section 106 evaluation. For such projects, note that a Section 106 conclusion of "no adverse impact" does not necessarily waive the need to prepare a Section 4(f) document. For guidance on Section 4(f) evaluations, see Section 411.12(1) and Section 455.05. Additional guidance is online at:

http://www.wsdot.wa.gov/environment/compliance/Section4f_guidance.htm

For certain projects having minor impact on historic properties or requiring use of historic bridges, Section 4(f) requirements may be met using FHWA's nationwide or programmatic evaluation and approval documents:

- Historic Sites Final Nationwide Section 4(f) Evaluation and Approval for Federally-Aided Highway Projects with Minor Involvements with Historic Sites (December 23, 1986).
- Historic Bridges Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges (July 5, 1983).

These documents are available via FHWA's web site:



Click on FHWA Programs, then Environment, then Environmental Guidebook, then Section 4(f), then the title of document.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v2ch15.htm

http://www.wsdot.wa.gov/environment/compliance/Section4f_guidance.htm

(7) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental and Section 4(f) documents. A draft EIS, if required, should include a discussion demonstrating that historic and archaeological resources have been identified and evaluated in accordance with the requirements of 36 CFR 800.4 for each alternative under consideration. Section 4(f) also applies to any archaeological site in or eligible for the National Register and which warrants preservation in place (see Section 455.05).

For guidance on format and content of Section 4(f) evaluations for historic and archaeological sites, see the Technical Advisory on FHWA's web site:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(8) Department of Community, Trade and Economic Development

The Washington State Department of Community, Trade and Economic Development (CTED) has an Archaeology and Cultural Preservation Program which offers additional resource information. See the CTED web site:

http://www.cted.wa.gov/

Click on Programs, then Office of Archaeology and Historic Preservation.

Or by direct link:

http://www.cted.wa.gov/oahp

456.06 Permits and Approvals

Permits relating to Historic, Cultural, and Archaeological Resources are addressed in the following sections:

Federal

- Section 520.05 Archaeological Resources Protection Permit (Federal)
- Section 520.10 Section 106 Compliance Impact on Historic Properties

Tribal

Section 530.03 – Tribal consultation or approval required under federal statutes:
 Clean Water Act Section 401 (Chehalis and Puyallup), Archaeological Resource
 Protection Act, and Historic Preservation Act, Section 106

State

• Section 540.22 – Archaeological Excavation and Removal Permit (State)

456.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, or permits that apply to road systems.

456.08 Exhibits

- **Exhibit 456-1** Glossary of Terms Related to Historic, Cultural, and Archaeological Resources.
- **Exhibit 456-2** Section 106 Regulation Users Guide National Register Evaluations Criteria.
- Exhibit 456-3 Sample Letters to Initiate Consultation
- *Exhibit 456-4* Guidelines for Determining the Area of Potential Effect.
- Exhibit 456-5 Guidelines for Developing Cultural Resources Surveys.
- Exhibit 456-6 WSDOT Historic Bridge Rehabilitation Guidelines.
- Exhibit 456-7 Washington State Historic Highway Bridges.
- *Exhibit 456-8* Examples of Historic Bridge Rehabilitation Projects.
- **Exhibit 456-9** Sample Memorandum of Agreement on Projects Affecting Historic Bridges.
- *Exhibit 456-10* Discipline Report Checklist, Cultural Resources.

Glossary – Historic, Cultural and Archaeological Resources

Adverse Effect – Occurs when an effect on an historic property diminishes the integrity of the property's aspects of integrity (see below). See also Determination of Effect. [Criteria of adverse Effect: 36 CFR 800.9(b).]

Advisory Council on Historic Preservation – An independent federal agency, established under the NHPA, which: (1) advises the President and Congress on matters of historic preservation; (2) carries out Section 106 reviews; and 3) provides technical assistance in historic preservation actions.

Affect (Verb) – Action that may change the character of an historic property.

American Indian Religious Freedom Act – Requires federal agencies and their representatives to consult with native groups (American Indians, Eskimos, Aleuts, and Native Hawaiians) "to protect and preserve Native American religious cultural rights and practices." [PL 95-341, 1978; 92 Stat. 469.]

Antiquities Act – Protects archaeological resources on federal lands, and established a permitting system for legal removal of materials. Most provisions have been superseded by the Archaeological Resources Protection Act; thus "antiquities" permits have become "ARPA" permits. [Antiquities Act: 16 USC 431, 1906.]

Archaeological and Historic Preservation Act – Addresses mitigation for cultural resources to be lost due to federal actions. Most often invoked after decisions for a federal project are reached through the Section 106 process, that is in "late discover" situations whereby the Secretary of the Interior may prescribe mitigative measures without consulting the Advisory Council. The Act also authorizes federal agencies to spend up to 1% on cultural resources work of the total cost of a construction project. [16 USC 469; PL 93-291, 1974.]

Archaeological Resources Protection Act – Establishes permitting process for archaeological excavation on *federal* land. Required "ARPA" permit applicants to demonstrate: (1) qualifications; (2) activity to be done to further archaeological knowledge; (3) curation plan for recovered artifacts. Requires federal land manager to notify Indian tribes of possible harm to sites having religious or cultural importance. Prohibits unauthorized excavation, removal, or defacement of archaeological resources, and sets civil penalties. [16 USC 470; PL 96-95 1979; Implementing regulations: 43 CFR 3.]

Area of Potential Effects (**APE**) – The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. APE should be defined before historic properties are identified. APE is not defined on the basis of land ownership, and should be determined based upon potential direct *and* indirect effects. [36 CFR 800.2(c).]

Aspects of Integrity – The seven (7) physical features of historic properties as they relate to properties' significance: location, design, setting, materials, workmanship, feeling, or association. See Integrity below, and National Register *Bulletin* 15, pp. 44-45.

Building – A construction created to shelter any form of human activity, including animal husbandry.

Certified Historic Structure – A depreciable building or structure which is either listed in the National Register or located in a National Register Historic District, or in a state- or local-designated historic district, and certified by the Secretary of the Interior as being of historical significance to (i.e., a contributing element in) the district. [36 CFR 67.2.]

Certified Local Governments (CLGs) – Local government historic preservation entities participating in the national historic preservation program, certified by the SHPO. Existence may afford property owners in the CLG jurisdiction the opportunity to participate in local (state, county, etc.) preservation incentives (e.g., tax incentives).

Certified Rehabilitation – On a certified historic property (see definition), work that is certified by the Secretary of the Interior as being consistent with the historic character of the property and, where applicable, with the district in which it is located. [36 CFR 67.2.]

Contributing Element (or Resource) – A building, site, structure, or object that adds to the historic architectural qualities, historic associations, or archaeological values for which a property is significant because: (a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period; or (b) it independently meets the National Register criteria. See National Register *Bulletin 16A*, p. 16.

Council (Advisory Council on Historic Preservation) – An independent federal agency that administers the Section 106 review process.

Criteria for Evaluation (National Register Eligibility Criteria) – Standards used for determining the eligibility of properties for inclusion in the National Register of Historic Places. [36 CFR 60.4(a-d)]. See National Register *Bulletin* 15, pp. 11-24.

Criteria Considerations – Additional standards applying to certain kinds of historic properties. [36 CFR 60.4(a-g). See National Register *Bulletin* 15, pp. 24-43.

Cultural Landscape – Also known as Rural Historic Landscape or Historic Landscape. A geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features. See National Register Bulletin 30 and C.A. Birnbaum and C.C. Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for the Treatment of Cultural Landscapes*, NPS, GPO, Washington, D.C., 1996.

Cultural Patrimony – Regarding cultural items, defined in NAGPRA as material remains of "historical, traditional, or cultural importance to the Native American group or culture itself."

Cultural Resource – A place, object, or event that is important to a community or region's history, traditions, beliefs, customs, or social institutions.

Cultural Resource Specialist (CRS) – A WSDOT employee in the Environmental Services Office who advises department staff on policies relating to items of historic/archaeology significance that may be affected by a project and who conducts regulatory compliance procedures.

Cultural Resources Management – The body of laws and regulations pertaining to historic, archaeological, and cultural properties, and the manner in which those directives are implemented.

Data Recovery Plan – A plan developed in consultation with the SHPO and interested parties for conducting research, gathering information, and documenting an historic property that will be adversely affected by a WSDOT project.

Department of Transportation Act – Section 4(f) (see definition) relates to historic properties. [49 USC 303, 1966, recodified 1983.]

Designed Historic Landscape – A landscape that has significance as a design or work of art; that was consciously designed and laid out to a design principle or recognized style or tradition; that has an historical association with a significant person, trend, or event in landscape architecture; or that has a significant relationship to the theory or practice of landscape architecture. See National Register *Bulletin 18*.

Determination of Effect – A finding, by a federal agency in consultation with SHPO, pursuant to compliance with Section 106 (see definition) that a proposed undertaking will have an effect on historic properties. If an effect is identified, the Criteria of Adverse Effect is applied to determine potential Adverse Effect (see definition). Other possibilities are determinations of No Effects and No Adverse Effect.

Determination of Eligibility – Formal recognition (by the SHPO, state Advisory Council, the Keeper of the National Register, or an agency) of a property's eligibility for inclusion, but not actual listing, in the National Register of Historic Places. Determinations of Eligibility may be prepared on National Register Registration Forms (NPS 10-900).

District – A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. May be an archaeological or historic district, or may contain elements of both.

Easement (Preservation Easement) – An agreement between a private property owner and a public body obligating the owner and future owners to preserve historic features of the property. The owner surrenders opportunities for development potential at "fair market value" for income, estate, and gift tax benefits of equal value.

Economic Recovery Tax Act of 1981 (ERTA) – Establishes the Investment Tax Credit (ITC) program for rehabilitation of older buildings, including certified historic buildings (see definition). [PL 97-34] Amended by the Tax Reform Act of 1986 (see definition).

Effect (Noun) – Occurs when an undertaking may alter characteristics that qualify a property for inclusion in the National Register. [Criteria of Effect: 36 CFR 800.9(a).]

Eligible – A property is eligible for inclusion in the National Register of Historic Places if it meets the National Register Criteria (see Criteria for Evaluation).

Environmental Impact Statement (EIS) – Required by NEPA and SEPA (see definitions), to include identification of known cultural resources in a federal or Washington State project area and disclosure of potential impacts.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations – Requires federal agencies to identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Section 6-606 requires consultation with federally recognized tribes to "coordinate steps" to pursue compliance with this executive order. [42 USC 4321.]

Executive Order 13006 – Requires federal government to "utilize and maintain, wherever operationally appropriate and economically prudent, historic properties and districts, especially those located in our central busin4ess areas ... when locating Federal facilities, Federal agencies shall give first consideration to historic properties within historic districts.... Any rehabilitation or construction that is undertaken pursuant to this order must be architecturally compatible with the character of the surrounding historic district or properties." (1996)

Executive Order 13007 – Requires federal agencies, "to the extent practicable, [to] (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites." (1996)

FONSI – Finding of No Significant Impact.

Growth Management Act (GMA) (Washington) – Requires counties and cities to "identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance." (1990)

HABS/HAER (Historic American Building Survey/Historic American Engineering Record) – The official documentary collections of the National Parks service, the Library of Congress, and the American Institute of Architects preserving the heritage of historic structures through graphic and written records. HABS/HAER documentation may be assembled and used to mitigate adverse effects to historic structures that meet the National Register eligibility criteria; for example, when an historic bridge that cannot be rehabilitated is scheduled to be replaced, photos with records, etc., can be collected and archived as a way to preserve it.

Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) – The historical architecture and engineering programs of the National Park Service that promote preservation through documentation in the Library of Congress of significant structures. HABS/HAER documentation can be sponsored by NPA, individuals, or organizations, but often is completed by agencies pursuant to Sections 106 or 110(b) of the National Historic Preservation Act. Those HABS/HAER mitigation projects record properties to be demolished or substantially altered as a result of agency action or assisted action.

Historic Context – A body of information about historic properties organized by theme, place, and time. It is the organization of information about prehistory and history according to the states of development occurring at various times and places.

Historic Preservation – Identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance and reconstruction, or any combination of the foregoing activities relating to historic properties. [16 USC 470w(8)]

Historic Property – A property or cultural resource that is listed in or eligible for listing in the National Register and, under SEPA, in state and local historic registers. Historic properties may be buildings or other structures, objects, sites, districts, archaeological resources, and traditional cultural properties (landscapes).

Indian Graves and Records Act (RCW 27.44), Archaeological Excavation and Removal Permit (WAC 25-48), Abandoned and Historic Cemeteries Act (RCW 68.04-05) (Washington) – State laws and regulations protecting Indian graves and historic cemeteries, and making disturbance of such sites, without a permit, a Class C felony.

Integrity – A measure of a property's evolution and current condition, especially as it relates to the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period.

Investment Tax Credit (ITC) – Credit granted by the federal government against tax liability for the certified rehabilitation of buildings for income-producing purposes. Made available by the Economic Recovery Tax Act of 1981.

ISTEA (Intermodal Surface Transportation Efficiency Act of 1991) – A national act that provides funding for historic bridge preservation and rehabilitation projects and provides for more flexible design standards in order to preserve historic structures.

Keeper of the National Register – Maintains the National Register of Historic Places, and makes final decisions on listing of properties nominated to the National Register.

Management Plan – Typically addressed appropriate treatments and preservation strategies for managing historic properties. Often included as an item in a Programmatic Agreement (PA – see definition).

Memorandum of Agreement (MOA) – A formalization of the means of resolving adverse effects agreed upon by the consulting parties, serving to specify mitigation, identify responsibility, render Advisory Council comment, and acknowledge effects of the undertaking on historic properties. May also be a Programmatic Agreement (PA).

Mitigation Measures – Actions required to mitigate adverse effects to historic properties. Usually stipulated in an MOA/PA.

Multiple Property Nomination – A registration of several significant properties linked by a common property type or historic context. Submitted to SHPO and NPS on National Register Multiple Property Documentation Forms (NPS 10-900-b), known as "MPDs." See National Register Bulletin 16B.

National Environmental Policy Act (NEPA) – Creates a national policy for environmental protection, to include the cultural environment. Requires federal agencies sponsoring projects to identify cultural resources and disclose potential impacts in Environmental Assessments (EA) or Environmental Impact Statements (EIS). Requires that all federal laws and regulations "be interpreted and administered in accordance with the policies set forth in this chapter; triggers Section 106 compliance." [PL 91-190, 42 USC 4321-4347, 1969.]

National Historic Landmark – Historic properties of national significance, established by the Historic Sites Act of 1935 [PL 74-292]. NHLs are also listed in the National Register. [National Historic Landmark Program, 36 CFR 65.]

National Historic Preservation Act (NHPA) – Establishes a national policy for historic preservation, the National Register of Historic Places, SHPOs, the Advisory Council on Historic Preservation, CLGs, and other programs. Contains Sections 106 and 110 (see definitions). [16 USC 470, PL 89-655, 1966, amended 1976, 1980, 1992.]

National Register of Historic Places – The nation's official listing of properties significant in national, state and/or local history, meeting one or more criteria for evaluation (36 CFR 60.4). Listing is commemorative, but may require compliance by property owners with federal/state/local laws and regulations. May also provide private property owners with opportunities to take advantage of preservation incentives, such as easements and tax relief.

Native American Graves Protection and Repatriation Act (NAGPRA) – Provides American Indians, Native Hawaiians, and Native Alaskans a formal role in activities occurring on *federal and tribal lands* that may affect archaeological resources. Mitigative actions developed pursuant to Section 106 of the NHPA, and the disposition of human remains, must meet with the approval of appropriate tribal authorities. In advertent discover of human remains and other cultural materials requires immediate "reasonable" protection of the items and a 30-day suspension of project-related activities. NAGPRA also sets forth a process for repatriation of human remains, and: funerary and sacred objects, and items of "cultural patrimony" (see definition) and provides penalties for illegally trafficking in same. [PL 101-601; 104 Stat. 3048.]

Nomination – Official request to have a property listed in the National Register. Documentation is placed on a National Register of Historic Places Registration Form (NPS 10-900) and submitted to the CLG (if appropriate), the SHPO, and the Keeper of the National Register (see definitions). See National Register *Bulletin 16A*.

Non-contributing Element (Resource) – A building, site, structure, or object that *does not* add to the historic architectural qualities, historic associations or archaeological values for which a property is significant because: (a) it was not present during the period of significance; (b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or (c) it does not independently meet the National Register criteria. See National Register *Bulletin 16A*.

Object – A construction primarily artistic in nature or relatively small in scale.

Office of Archaeology and Historic Preservation (OAHP) – A branch of the Department of Community, Trade, and Economic Development, this office houses the Washington State Historic Preservation Officer (SHPO). SHPO locations in state governments are unique to each state.

Patent – Legal title to real property. Granted by the federal government for parcels of the public domain when alienation occurs as the result of homesteading or similar action.

Programmatic Agreement (PA) – An agreement typically developed for a large or complex project or types of undertakings that would otherwise require a number of individual actions under Section 106, especially when effects on historic properties are repetitive or multi-state or national in scope; or when effects cannot be fully determined prior to project approval; or when effects consist of routine maintenance of historic properties. Management Plans (see definition) are often stipulated in Pas. [36 CFR 800.13(a).]

Property Type – Historic properties sharing physical or associative characteristics.

Protection of Historic and Cultural Properties (36 CFR 800) – Federal regulations implementing Section 106 of the National Historic Preservation Act.

Registration Requirements – Attributes of significance and integrity qualifying a property for listing in the National Register; especially important in establishing eligibility for each property type in Multiple Property submissions.

Rehabilitation – The process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values. [36 CFR 67.2]

Request for Proposal (RFP) – Issued by agencies soliciting contracted cultural resource studies.

Rural Historic Landscape – See Cultural Landscape, and National Register Bulletin 30.

Secretary of the Interior's Standards for Rehabilitation – Ten general rules outlining appropriate rehabilitation (see definition) for historic properties. Used to evaluate whether the historic character of a building is preserved in the process of rehabilitation, and to determine eligibility of certified rehabilitation (see definition) projects. [36 CFR 67.]

Section 4(f) – Requirement in the Department of Transportation Act of 1966 that federally-funded highway projects may affect historic properties *only if*: no prudent and feasible alternatives exist and adverse effects are minimized. [Also appeared in the Federal-Aid Highway Act of 1968; recodified in 49 USC 303, 1983.] See Environmental Procedures Manual, **Section 455**.

Section 106 Review – Section 106 of the Advisory Council's regulations (36 CFR Part 800), which implements the National Historic Preservation Act of 1966, as amended. This is the federal review process that ensures that historic properties are considered during federal aid project planning and execution. Section 106 applies to historic properties that have not yet been listed or formally determined to be eligible for listing; even properties that have not yet been discovered (such as archaeological sites) are subject to Section 106 review. The Section 106 review process satisfies SEPA requirements.

Section 110 – Section in the National Historic Preservation Act of 1966 assigning broad responsibilities to federal agencies to: designate an agency preservation officer; locate and nominate properties to the National Register; record historic properties that must be altered or destroyed (HABS/HAER documentation); undertake preservation; and other responsibilities. [16 USC 470h-2.]

Section 304 – Section of the National Historic Preservation Act of 1966, as amended in 1992, directing federal agencies or other public officials receiving federal grant assistance to withhold from disclosure to the public, information regarding the location, character, or ownership of an historic resource if that disclosure may: (1) cause invasion of privacy; (2) risk harm to the resource; or (3) impede the use of a traditional religious site by practitioners. Section 304 serves as an exemption from disclosure requirements of the Freedom of Information Act.

Section 404 Permit – Requirement of the Clean Water Act of 1977, as amended, for modification of wetlands, and for dredging and filling of navigable waterways. [33 USC 1344.] Permit requirement triggers compliance with Section 106 of the National Historic Preservation Act.

Setting – Quality of integrity applying to the physical environment of an historic property.

Site – The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.

State Environmental Policy Act (SEPA) (Washington) – Procedural aspect: impacts on historic resources must be identified. Substantive aspect: counties and cities can adopt policies that provide authority to stop or limit adverse impacts to historic resources. [SEPA Rules: WAC 197-11.]

State Historic Preservation Officer (SHPO) – Coordinates preservation activities in each state; one SHPO per state, usually appointed by the governor. SHPO is charged with reflecting the interests of the state and its citizens in preserving their cultural heritage, which involves a variety of responsibilities. [36 CFR 61.4(b).] In Washington State, SHPO is housed in the Office of Archaeology and Historic Preservation (OAHP).

Structure – Functional constructions made usually for purposes other than creating shelter.

STURAA (Surface Transportation and Uniform Relocation Assistance Act of 1987) – A national act that mandates states to give special consideration to rehabilitating, reusing, and preserving historic bridges.

Tax Reform Act (TRA) of 1986 – Amended the Economic Recovery Tax Act of 1981 (see definition) reducing: (1) to 20% of the ITC (see definition) allowable for rehabilitation costs for certified historic structures (see definition); and (2) to 10% of the ITC allowable for buildings first placed in service before 1936. [PL 99-514.]

TEA 21 – Transportation Equity Act for the 21st Century (PL 105-178), continues national transportation policy directions established by ISTEA. (1998)

Traditional Cultural Property – A place eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that are (a) rooted in that community's history, and (b) important in maintaining the continuing cultural identity of the community. The concept is based upon the introductory section of the National Historic Preservation Act, which states that "the historical and cultural foundations of the Nation should be preserved as a living part of our community life in order to give a sense of orientation to the American people." [16 USC 470(b)(2)] See National Register *Bulletin 38*. Authorized by the 1992 Amendments to the National Historic Preservation Act. [Section 101(d)(6)(A).]

Tribal Historic Preservation Officer – Authorized by the 1992 Amendments to the national Historic Preservation Act. When approved by NPS, Tribal HPO replaces SHPO in compliance process on "tribal" lands. [Section 101(d)(2).]

Undertaking – Any activity that can result in changes in the character or use of historic properties. The activity must be under the direct or indirect jurisdiction of a federal agency or licensed or assisted by a federal agency. [36 CFR 800.2(o).]

Universal Transverse Mercator (UTM) Grid System – Method for locating historic properties using USGS maps and measurements cited in linear, decimal units. Measurements are referred to as "UTMs."

Section 106 Regulations Users Guide National Register Evaluation Criteria

The following criteria are established by the Advisory Council on Historic Preservation. For current criteria see:



http://www.achp.gov/

National Register Criteria for Evaluating Properties

The criteria applied to evaluate properties (other than areas of the National Park System and National Historic Landmarks) for the National Register are listed below. These criteria are worded in a manner to provide for a wide diversity of resources. The following criteria shall be used in evaluating properties for nomination to the National Register, by the National Park Service (NPS) in reviewing nominations, and for evaluating National Register eligibility of properties.

Guidance in applying the criteria is further discussed in the "How To" publications, Standards & Guidelines sheets, and Keeper's opinions of the National Register. Such materials are available upon request from National Register of Historic Places Publications, National Park Service, P.O. Box 37127, Washington, D.C., 20013-7127 (phone: 202-343-5726).

Criteria for Evaluation

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or
- (c) that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that have yielded, or may be likely to yield, information important in prehistory or history.

Criteria Considerations

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will quality if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- (a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- **(b)** A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- (c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.
- (d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- **(e)** A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- **(f)** A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- **(g)** A property achieving significance within the past 50 years if it is of exceptional importance. [This exception is described further in NPS's "How To" booklet No. 2, entitled "How to Evaluate and Nominate Potential National Register Properties That Have Achieved Significance Within the Last 50 Years," available from NPS.]

Sample Letters to Initiate Consultation

Example SHPO Initiation & APE Letter

Date

SHPO Address 1 Address 2

Dear Dr. Brooks:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to develop an undertaking to address an identified transportation need in [county name]. [Note: Enclose appropriate project documentation with this letter identifying the facility, e.g., SR 395; defining the termini or corridor boundaries, e.g., Hillsboro Street interchange; if known at this time, provide a description of the undertaking, e.g., new construction of overpass and ramps; include maps or other attachments which visually identify the undertaking.]

In order to ensure that we take into account the effects of this undertaking on properties listed in or eligible for listing in the National Register of Historic Places, the WSDOT is initiating formal Section 106 consultation pursuant to 36 CFR 800.2(c)(4). WSDOT has been delegated the authority from FHWA to initiate consultation and we will be directly managing the cultural resources studies and carrying out this undertaking, you may contact us at any time for assistance with the process and/or the undertaking.

Your response to this letter, acknowledging your interest in participating in this undertaking as a consulting party, and in identifying the project's Area of Potential Effects (APE), is greatly appreciated. We are also inviting comments from the Tribes on the proposed project. Please provide a response by [Note: Project out 30 days beyond expected receipt of letter and put this date in here] so that we may discuss this undertaking and any of those identified areas of interest. Should you have any questions about this project, you may contact [Put the name, phone number, and address of the permit coordinator here].

If you have any general questions about the Section 106 process, you may contact WSDOT Staff person by phone at () or by e-mail at

Sincerely,

Enclosures [Note: Enclose project documentation AND "Purpose and Scope of Consultation".]

cc: FHWA
Project File
Day File

Example Tribal Initiation Letter

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IAIR
dress 1 dress 2
n:, Cultural Resources Director or [Note: The office responsible for Cultural sources coordination may vary between Tribes.]
ar Chairperson:
e Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway ministration (FHWA), is proposing to develop an undertaking to address an identified transportation of in [county name]. [Note: Enclose appropriate project documentation with this letter ntifying the facility, e.g., SR 395; defining the termini or corridor boundaries, e.g., Hillsboro eet interchange; if known at this time, provide a description of the undertaking, e.g., new astruction of overpass and ramps; include maps or other attachments which visually identify the dertaking.]
order to ensure that we take into account the effects of this undertaking on properties listed in or gible for listing in the National Register of Historic Places, the WSDOT is initiating formal Section of consultation pursuant to 36 CFR 800.2(c)(4). Recognizing the government-to-government ationship, which the Federal Highway Administration has with the Tribe, they will continue to play a role in this undertaking as the responsible Federal agency. However, since the WSDOT has been egated the authority from FHWA to initiate consultation and we will be directly managing the cultural ources studies and carrying out this undertaking, you may contact us at anytime for assistance with the cess and/or the undertaking.
ur response to this letter, acknowledging your interest in participating in this undertaking as a sulting party, in identifying any Traditional Cultural Properties (TCPs) that may exist within the ject's Area of Potential Effects (APE), and any key Tribal contacts, is greatly appreciated. We are principally inviting comments regarding any other Tribal concerns the proposed project may raise. Please wide a response by [Note: Project out 30 days beyond expected receipt of letter by Tribe and put as date in here] so that we may discuss this undertaking and any of those identified areas of interest, and you have any questions about this project, you may contact [Put the name, phone number, and thress of the permit coordinator here].
rou have any general questions about the Section 106 process, you may contact WSDOT Staff person phone at () or by e-mail at
cerely,
closures [Note: Enclose project documentation AND "Purpose and Scope of Consultation".] SHPO FHWA Project File Day File

(Enclosure)

PURPOSE AND SCOPE OF CONSULTATION

Through consultation, we want to ensure that the Tribe is afforded the opportunity to identify any concerns you may have regarding the effects of the proposed undertaking on historic properties; that you have a reasonable opportunity to advise the Federal Highway Administration and the Washington State Department of Transportation on the identification and evaluation of historic properties, including those of traditional religious and cultural importance; that you have the opportunity to express your views on the undertaking's effects on such properties; and, that the Tribe is a participant in the resolution of any adverse effects which the undertaking might have on such properties.

The first step in the Section 106 process, prior to the identification and evaluation of historic properties, is to identify the area of potential effects. *Area of potential effects* means the geographic area or areas within which the proposed undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. Your participation as a consulting party in determining the area of potential effects is invited. Once this area has been defined, a cultural resources survey will be initiated. If the Tribe has information about traditional cultural areas that might be affected by the proposed undertaking, your input will be a valuable contribution to the cultural resources survey effort.

Once historic properties have been identified and evaluated for their historical significance in accordance with the criteria of the Keeper of the National Register of Historic Places, the affects of the proposed undertaking on any properties determined to be listed in or eligible for listing in the National Register will be assessed. The Tribe's participation in this effort is invited.

As defined by the Advisory Council on Historic Preservation, *consultation* means "...the process of seeking, discussing, and considering the views of other participants and, where feasible, seeking agreement with them regarding matters arising in the section 106 process." As such, consultation is fundamental to the process of seeking ways to avoid, minimize or mitigate the affects of the undertaking on historic properties. Consequently, your active participation as a consulting party in the proposed undertaking is encouraged.

Guidelines for Determining the Area of Potential Effect

WSDOT, on behalf and in coordination with the Federal Highway Administration (FHWA), carries out certain requirements of 36 CFR Part 800 per the July 18, 2000 Programmatic Agreement. As required for Section 106 compliance, identification of the Area of Potential Effects (APE) and subsequent cultural resources surveys are done for all projects having a federal nexus (e.g. permit, signatory, funding etc.). Using these guidelines when starting the consultation process with the SHPO, THPO, or Tribes provides the necessary background needed. These procedures only apply to WSDOT efforts in identifying the APE. These guidelines should be considered as a tool to assist in defining the APE and starting the consultation process with the SHPO, THPO or Tribes, who may provide revisions to the APE. These guidelines apply only to WSDOT efforts of identification and are intended to help meet the requirements as described in 36CFR800.16. Project managers and managers of consultant work should use these guidelines in determining the APE.

Note: The definitions are not intended to be all-inclusive for every scenario.

Area of Potential Effects (APE) is defined in 36CFR800.16 (d) as:

(d) Area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. Source: undertaking. Source: Section 106 regulations.

General points on APE identification:

Section 106 regulations.

General points on APE identification:

- The knowledge of all all historic properties (those not yet recorded)(those not yet recorded) is not needed to initially establish the APE.
- APE should include all areas of potential direct and indirect effects.
- APE may include more than one area.
- Agency consults with SHPO and appropriate Tribal contacts (THPO, Cultural Resources Manager, or Natural Resources Manager) and appropriate Tribal contacts (THPO, Cultural Resources Manager, or Natural Resources Manager) to further determine the APE.
- APE is defined before identification of cultural resources begins.
- APE is not determined on basis of land ownership.
- APE should include all project alternatives, and all areas of ground disturbance.
- May have different APE(s)APE(s) for different effects.
- Agency is required to document its determination.
- APE may need to be modified/changed during project lifetime.

Key points to consider when determining the *extent* of the APE:

- 1. Areas of potential soil disturbance:
 - a. Depth of all proposed excavation.

- b. All areas where soil will be disturbed—volume of soil to be removed from the site and volume of soil to be placed as fill.
- c. All WSDOT-owned pit and quarry sites, and/or new privately owned sites developed by contractor (the availability of new private sites is an important consideration)
- d. All materials sources, if known in project development–define area and volumes of soil to be displaced.
- e. All potential landscaping areas.
- f. All areas where heavy equipment operations will occur.

"Directly related to the Federal Project" means that the area(s) in question is either designated in the contract or the number of material sources or areas available is practically so limited as to require the selection of a historic or archaeological resource. If borrow material is available from many places, and the contractor happens to select a source entirely at the contractor's option which is a historic or archaeological resource, the site is not "directly related" to the Federal project.

Source: FHWA Guidance on the Consideration of Historic and Archaeological Resources in the Highway Development Process, dated Dec. 23, 1988.

2. All locations from which elements of the project may be visible or audible; and locations affected by atmospheric effects of the project.

Although direct impacts to historic and cultural resources (demolition of buildings, reconstruction, etc.) are the most obvious, any APE request needs to also consider whether the new construction will result in any visible, audible or atmospheric (meaning dust or debris from transportation projects) effects to any historic resources. A change in the setting can affect the historic characteristics of a property. This is a common issue within historic districts where great care may have been taken to restore buildings and streets. Indirect effect issues may be the most over looked concern within the APE request process. New construction can bring noise for the first time to secluded parks or Tribal cultural areas were serenity is a major attraction. Another example of noise may be when a new roadway is introduced adjacent to a historic-era theater that may not be insulated for traffic noise. Trail construction may bring travelers into areas that risk exposure to archaeological sites. Trail construction may bring travelers into areas that risk exposure to archaeological sites.

3. Construction of staging areas or use of detour routes, changes in land use etc.and due to right-of-way acquisition.

Ground disturbance from staging equipment and materials has often been overlooked. The open areas where staging has taken place in the past are now given additional attention and need to be addressed in the APE request. If you do not know where (or if) staging will take place, state within the text of your APE request that the project contractor may or will designate a staging area. This is a topic that the Tribes also have interest in and they may request this information any time throughout the NEPA process. In some cases, the Tribes will request protective measures, such as a layer of gravel be applied to the staging area, and once the site is no longer needed, remove the layer of gravel.

Consideration needs to be given to any proposed detour routes and the impacts that may occur due to diverting traffic. If you know traffic patterns are going to change be sure to mention this within your APE request.

Lastly, when the project requires right-of-way (ROW) acquisition, the new ROW will almost always be included in the APE. The nature of the land (undeveloped, developed, containing potential historic properties, etc.) adjacent to the new ROW is also a consideration in the extent of the APE.

Key Points to consider in determining the content of an APE submittal package:

- 1. Description and pictures of historic structures, landmarks or culturally significant sights within the proposed APE. Pictures would typically be collected as background research for the survey, however some sources for this information are:
 - Using the GIS system either at the WSDOT Environmental Services' Cultural Resources
 Office, or at Office of Archaeology and Historic Preservation (OAHP), check database
 for existing historical properties, archaeological sites, landmarks etc.
 - http://www.oahp.wa.gov/GIS.htm

(Note: Access to this data is restricted.)

- Tribal Historic Preservation Offices or Cultural Resources Offices.
- Using the OAHP web site, verify whether there are any listed historic properties on the national, state or local registers.
 - http://www.oahp.wa.gov/records.htm
- Contact Tribal Historic Preservation Offices or Cultural Resources Offices
- Existing Historic Bridge Inventories (Available in the EPM Chapter 456-08 Exhibit 8)
 - http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/EPM/456.pdf
- Use the WSDOT SRweb (**SRweb** is a software tool that allows users to view digital images of the State Highway System via a web browser). **SRweb** is used primarily by engineers, maintenance staff, planners and others who have a need to see portions of WSDOT's roadways. You can access it at:
 - http://wwwi.wsdot.wa.gov/ppsc/tdo/srwebintro.htm
- Take pictures of your project site and the general vicinity. If available, include pictures of any landmarks, buildings over 50 years old, historic sites, or areas of cultural significance within the proposed APE. Each picture should carry a caption explaining the orientation of the photo and an explanation of the photos subject.
- 2. Proximity to local landmarks, towns, or milepost markers.
 - The OAHP will need to track your location through a series of maps and databases, using the legal description. Including a *simple landmark* or a nearby *milepost* within the APE request will help the OAHP pinpoint your site. That additional information will help them retrieve any historical data that may exist for resources within the project site.
- 3. The legal description, detailed maps (*pinpoint project site and drawn borders of proposed APE recommended*), and photos of the project site.
 - Be sure to include the legal description by Township, Range, & Section. *Breakdown by 1/4 section is not needed for the APE request.* Maps need to be detailed; a good rule of thumb for a functional map is one section (*1 square mile*) on an 8-1/2 inch by 11-inch sheet of paper. Include available USGS maps. Topographic maps and Department of Natural Resources (*DNR*) Base maps are ideal for this requirement. The map needs to depict the proposed APE with a border circling the area. The project action area should be depicted, along with the staging areas. Roads, streams, railroads and landmarks should be visible and keyed on the face of the map.

Bonus Tips: This seems obvious although most APE request applications leave this out, *write down a description of your proposed APE and map it!* Within your text simply state "My

proposed APE resides within the borders of (*street, town, job site, mile markers*) and should not affect any cultural location or landmark outside of those borders." Then map it.

Use the attached letter templates. The OAHP prefers to receive materials and submittals using available electronic forms:

http://www.oahp.wa.gov/forms.htm

There is no set time frame for the SHPO or Tribes to respond to APE determinations, but 30 days is the standard response time.

Flexibility in Identification Effort

Agency efforts shall take into account:

- Past studies
- Magnitude and nature of undertaking
- Degree of federal involvement
- Nature and extent of potential effects
- Likely nature and location of historic properties
- Applicable standards and guidelines
- Confidentiality concerns

Guidance for Developing Cultural Resources Surveys

This guidance is to assist in developing Cultural Resources Surveys to comply with WSDOT policy and Section 106 of the National Historic Preservation Act.

Introduction and Purpose

Any agency that receives federal funds or permits is required to comply with the provisions of 36 CFR 800, the regulations that implement Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended). The Washington State Department of Transportation (WSDOT) conducts its projects in accordance with prescriptions of 36 CFR 800, because the great majority of state projects have a federal "nexus", for example federal funding through the Federal Highway Administration (FHWA) or federal permits from the Army Corps of Engineers. Even in the rare cases where there is no federal nexus, the WSDOT still conducts Section 106 level consultation and review regarding cultural resource assessments. This practice is to insure the project is Section 106-compliant should federal funding become available or a federal permit be required. WSDOT, on behalf of FHWA (the lead federal agency for federal-aid projects), conducts Section 106 consultations in partnership with the State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officers (THPO).

On those projects that we need assistance on, WSDOT contracts with qualified cultural resource professionals to prepare the discipline reports that are intended to provide information on the potential for a project, or *Undertaking*, to impact a cultural resource. The purpose of this guidance is to promote consistent high quality of consultant surveys and successful Section 106 consultations. These assessments and surveys are conducted essentially to identify, record, assess, and determine the eligibility of any cultural material in a project area that could be impacted by the project. However, the assessment of the site and the production of the report can only be conducted after WSDOT has a defined the Area of Potential Effect (APE).

The primary purpose of the Section 106 process is to allow all *Concerned* or *Interested Parties* the opportunity to comment on effects to cultural resources. This obligation to solicit comments and input is the sole responsibility of the WSDOT, acting on behalf of FHWA. In the event the project has adverse effects to a historic property, FHWA will take over the compliance efforts.

In the past consultants have contacted parties in attempts to satisfy the federal requirement for consultation; however in the case of Indian tribes, this is not consistent with the government-to-government relationship the state and federal governments have with Indian tribes and nations. Therefore, all official communication with Indian tribes concerning Section 106 consultation for an undertaking must be handled by the WSDOT unless otherwise directed by WSDOT or FHWA. This is not meant to hinder the cultural resource investigation; rather it is to ensure that tribal concerns for the protection and management of sensitive cultural resources are addressed in a confidential and respectful manner.

Area of Potential Effect (APE)

WSDOT regions prepare an APE request to seek tribal and SHPO concurrence on the area the undertaking may impact. There is separate guidance for determining the APE, but generally the request includes the following list of elements:

- Physical and geographic description of the proposed APE.
- Areas of potential soil disturbance (include depth of excavation, volume of soil to be removed, etc.).
- Locations from which elements of the project are visible or audible, and locations where the project could create atmospheric impacts.
- Construction staging areas or detour routes.
- Description and pictures of historic structures, districts, landmarks, or culturally significant sights within the proposed APE (if known and available).
- Proximity to local landmarks, towns, or milepost markers.
- The legal description, detailed maps (identifying the project site and outlining the proposed APE on the map is recommended), and photos of the project site.

Who has to prepare the cultural resources survey?

A professional archaeologist or cultural resources specialist who meets the Secretary of Interior's Professional Qualifications Standards must prepare the survey. These Standards require the individual to have a minimum level of specific education and experience. The Secretary's Professional Qualifications Standards can be found at: http://www.cr.nps.gov/local-law/arch_stnds_9.htm.

The Washington State Office of Archaeology and Historic Preservation (OAHP) maintains a list of consultants on their web page who meet the Secretary's Standards at: http://www.oahp.wa.gov/pages/EnvironmentalReview/Consultants.htm. It is important to note that the list is not exhaustive of qualified consultants, nor does it endorse individual consultants. It simply acknowledges that the individuals listed meet the Secretary's Standards. WSDOT also has on-call agreements with cultural resource professionals that should be considered first, please check on their availability.

How will coordination occur?

For FHWA funded projects and WSDOT generally, all coordination with the tribes, OAHP, and/or the Advisory Council on Historic Preservation (ACHP) is the sole responsibility of the WSDOT as FHWA's delegated representative. Consultants must work through their contact at the WSDOT, unless otherwise directed.

WSDOT, on behalf of the FHWA, assumes the responsibility for ensuring that the analysis and conclusions of the cultural resources survey are accurate and complete. As such, all documentation (APE requests, cultural resources surveys, determinations of eligibility and effect, MOAs, etc.) will be submitted to WSDOT for review and approval. The results of the department's review may require multiple revisions to the document prior to its transmittal to FHWA, OAHP, tribes, and any other interested consulting parties. One purpose of this guidance is to minimize the number of such revisions.

Preparation of the Cultural Resources Survey

When retained for cultural resources work on a project, the consultant is responsible for identifying and inventorying any cultural and historic properties or resources within the APE

established by the WSDOT region and concurred with by the tribe(s) and SHPO. While the determination of effect is ultimately the responsibility of FHWA and WSDOT, the consultant <u>must</u> include a recommendation for the effect determination for each NRHP eligible property and resource identified within the survey.

The cultural resources survey report should adhere to OAHP's *Survey and Inventory Guidelines* and include the following elements:

- 1) A cultural resources survey cover sheet supplied by the OAHP.
- 2) A clear description of the undertaking and the regulatory requirements.
- 3) A precise legal description of the project location, using Section, Township, and Range; a clear statement of property ownership; and an accompanying USGS 7.5 minute quad map with an inset of quad location in Washington State.
- 4) Sufficient history and background sections that state the relevant influences that would account for cultural resources in the area and demonstrate an understanding of the geology, ecology, and the depositional environment. This is also where any and all Traditional Cultural Property (TCP) issues are addressed. The sources must be clearly cited and referenced in a *Works Cited* or *References* section at the end of the document.
- 5) Expectations for potential cultural resources must be explicitly stated.
- 6) Methods of survey and testing of the APE must be stated in understandable and straightforward language that shows the work was adequate to locate, identify, and assess any cultural resources in the APE.
- 7) Results of the field investigations should be reported with emphasis on the regulatory requirements of the WSDOT. All identified cultural resources should be inventoried in a brief manner, with enough information to demonstrate whether or not they are eligible for listing in the NRHP. In a separate appendix to the report, Washington State Site Inventory Forms should be completed for all identified resources. Electronic copies of the inventory forms must also be submitted.
- 8) Maps
 - a. USGS quadrangle of project area (see above)
 - b. Site maps (or "sketch maps") of specific locations surveyed which include:
 - i. Field investigation should be presented in graphic form on a scale drawing or sketch map.
 - ii. Shovel test locations, transect paths, surface cultural resources found, prominent features, scale, north arrow, inset location, report title, and caption (relevant to 'Figure' or 'Table') should be included.
- 9) The report should include photographs and figures illustrating the project area, contents of subsurface testing, exposed features or soils, local resource acquisition sites, project related structures, and/or any other subject relevant to the project.
- 10) Recommendations for the treatment of the resources and the eligibility of the site(s) for listing should be stated at the end of the document. Work not covered by the contract, such as data collection for mitigating the possible adverse effect of a project or monitoring, should also be stated.
- 11) Site/Historic Property Inventory Forms or site form updates are mandatory for survey reports that locate or encounter recorded sites. These are provided by the OAHP and

- must meet the State Historic Preservation Officer's standards as published in the *Guidelines for Survey and Inventory*. All historic building inventories must be completed on electronic media also provided by the OAHP.
- 12) Determination(s) of NHRP eligibility for all cultural resources within the APE are required by 36 CFR 800 as part of the Section 106 process. The remainder of the process hinges on the eligibility of the resources within the APE and the project's impacts on those resources.
 - a. Determinations of NRHP eligibility (DOEs): consultants' opinions must reference the NRHP Criteria for Evaluation (a-d) and the seven "aspects of integrity."
 - b. Determinations of Eligibility should NOT be signed by the consultant, but are signed by the Agency Official (in most cases by WSDOT Cultural Resource Program staff)

An adequate number of report copies must be submitted to the WSDOT for circulation to the concerned tribes, SHPO, and any other interested consulting parties.

Consultation is not complete until all parties (FHWA, WSDOT, tribes, SHPO, and any other interested consulting parties) have reviewed the findings of the report and have had the opportunity to comment on them.

What can I do to ensure the Section 106 process is as seamless as possible?

Project managers and environmental staff should work with their consultants to ensure they understand Section 106 compliance needs PRIOR to conducting the survey and preparing the report. The APE and the undertaking should also be completely understood by the consultant. All the elements outlined above should be included in cultural resources survey documents. Ensuring that these documents are complete and accurate will likely reduce the amount of revisions requested by WSDOT, tribes, and the SHPO, thus shortening the time frames associated with the process.

WSDOT Historic Bridge Rehabilitation Guidelines

For projects involving rehabilitation of historic bridges, the following specific guidelines should be followed for structural upgrading, geometric modification, and materials repair and maintenance. Budgetary constraints, geographic location, and good judgment will determine which apply to a particular project.

Structural Upgrading

- A. Identify the structural system and its historically significant features. Use nondestructive testing techniques.
- B. Explore passive solutions that limit the live load by restricting vehicles. Examples include load posting, signaling, and channelization.
- C. Respect the structural system and retain its visual characteristics if modifications are necessary.
 - 1. If possible, retain the load-carrying system in its original configuration.
 - 2. If possible, reduce the dead load by providing a lighter deck system.
 - 3. If the load-carrying system must be altered, retain the character-defining visual qualities of the original structural system. The visual impact to systems that are modified can be minimized by using structure continuity and king post-truss beam reinforcement; changing the configuration of isolated members or adding helping structures; adding supplemental members under the deck of the structure.
- D. When more visually intrusive structural modifications are required, keep them as inconspicuous as possible, and try to preserve the primary view and impact only secondary views.
 - 1. Bridges that carry highway traffic are seen by roadway travelers from afar, in elevation, and while traveling on the bridge deck. Make modifications with this in mind.
 - 2. Where the primary view is from below the bridge (e.g., canal bridges no longer in vehicular service), make modifications accordingly.
- E. Design modifications with the least possible loss of historic material. Do not obscure, damage, or destroy the historically significant features of the bridge.
- F. Clearly differentiate structural modifications or helping structures from the historic bridge. The design should be compatible in terms of mass, materials, scale, and detail but should not dominate the historical portion.
- G. Design and install traffic railings, or safety barriers, to avoid or minimize visual impacts to the character-defining features of the bridge.

H. Replace deteriorated structural elements in kind or with a material that duplicates the visual appearance of the original element.

Geometric Modifications

- A. Determine realistic needs for geometric parameters in light of connecting highways, projected traffic volumes, accident history, and the nature of future traffic needs.
- B. Explore passive (off-bridge) solutions.
 - 1. Adjust alignment of the approaches, restrict the bridge to one-way traffic, or both.
 - a. Create holding lanes for traffic at the approaches to a one-lane bridge, with appropriate provisions for safety.
 - b. Leave the historic bridge in place for one lane of traffic and move another visually compatible historic bridge to an adjacent site to carry the second lane.
 - c. Leave the historic bridge in place for one lane of traffic and construct a visually compatible new bridge on an adjacent site for the second lane.
 - 2. Adjust the flow of approaching traffic by restricting vehicles, restricting speed, or installing signs and traffic signals.
- C. Alter the geometric configuration of the bridge to remedy geometric deficiencies.
 - 1. To increase the vertical clearance on through bridges, reduce the depth of the portal frames and sway frames, with minimum destruction of the historic materials used in the bridge's original construction.
 - 2. To increase the vertical clearance on grade-separation structures, raise the superstructure or lower the roadway.
 - 3. To increase the roadway width, some types of structures can be modified (e.g., multigirder, some concrete and stone bridges). Design modifications to be compatible with the appearance and scale of the original bridge.
 - a. Provide sidewalks external to the bridge for pedestrian safety.
 - b. Widen the bridge by cantilevering a new deck from either side of the existing structure, where structurally feasible and aesthetically and historically appropriate.

Materials Repair and Maintenance

- A. Identify features that are important in defining the overall historic character of the bridge. Consult an architectural historian or similar professional with expertise in historic bridge preservation/ rehabilitation.
- B. Repair historic materials, if possible. If replacement of a feature is necessary, replace in kind or with a compatible substitute material.

1. Concrete: Superstructure and substructure

- a. Damage caused by drainage and vegetation
 - (1) Provide proper deck drainage systems that do not damage or promote deterioration of the superstructure or substructure.
 - (2) Remove vegetation growing on bridge superstructure or substructure.

b. Cleaning

- (1) Clean concrete only when necessary to halt deterioration or to remove heavy soiling.
- (2) Clean concrete with the least destructive method possible.
- (3) Use proposed cleaning method on test patches to determine long-range detrimental effect of cleaning.

c. Crack Sealing

- (1) Remove deteriorated concrete by carefully hand raking cracks to avoid damaging sound areas.
- (2) Material used to seal cracks should match old concrete in composition, color, and texture.

d. Repair of deteriorated sections

- (1) Replace extensively deteriorated or missing features in kind or with a compatible substitute material.
- (2) Avoid applying nonhistoric coatings, such as stucco, gunite, and sealants to concrete surfaces.

2. Metals

- a. Cleaning. Identify metallic composition prior to cleaning, then test in patches for least destructive cleaning method. Use the least destructive cleaning methods possible to remove paint buildup and corrosion. For example, if hand scraping and wire brushing prove ineffective, low pressure dry grit blasting may be used as long as it does not damage the structural integrity of the bridge.
- b. Repaint with colors appropriate to the history of the bridge.
- c. Replace deteriorated or missing decorative elements in kind or with compatible substitutes.

3. Wood

- a. Repair historic wood features by patching or reinforcing, using recognized preservation techniques.
- b. Replace irreparable historic wood features in kind. If replacement in kind is not possible, use substitute materials that are compatible in texture and form, and that convey the same visual appearance as the original.

Washington State Historic Highway Bridges

The following bridges are listed in (NR), eligible for listing in (NR DE), or have been nominated to the National Register of Historic Places. Those documented by or for the Historic American Engineering Record are identified as "HAER."

County	No.	Name	Date Built	Owner	Inventory
Asotin	129/2	Grande Ronde River Bridge	1941	WSDOT	NR
Asotin	12/903	Indian Timothy Memorial Bridge	1923	WSDOT	NR/HAER
Benton	225/1	Benton City-Kiona Bridge	1957	WSDOT	NR Nominated
Benton- Umatilla (OR)	82/280S	Columbia River Bridge at Umatilla	1955	WSDOT	NR Nominated
Benton- Franklin	395/40	Pioneer Memorial "Blue" Bridge	1954	WSDOT	NR Nominated
Chelan	285/20E	Wenatchee Ave. NB, Wenatchee	1933	WSDOT	NR DE
Chelan	285/20W	Wenatchee Avenue SB Bridge	1955	WSDOT	NR Nominated
Chelan	306	West Monitor Bridge	1907	County	NR
Chelan- Douglas		Wenatchee-Columbia River Bridge	1908	Local	NR
Chelan- Douglas	285/10	Columbia River Bridge at Wenatchee	1950	WSDOT	NR
Clallam	30000 BR 1	Elwha River Bridge	1913	County	NR
Clallam	PT ANGL 2	Tumwater Creek on 8 th Street	1936	Local	NR DE
Clallam	PT ANGL 1	Valley Creek on 8 th Street	1936	Local	NR DE
Clark- Multnomah (OR)	5/1E & 5/1W	Vancouver/Portland Columbia River Interstate Bridges	1916/1958	WSDOT/ ODOT	NR/HAER
Clark- Cowlitz	503/26	Yale (Lewis River) Bridge	1932	WSDOT	NR/HAER
Columbia- Franklin	261/125	Snake River/Lyons Ferry Bridge	1927	WSDOT	NR/HAER
Cowlitz	503/112	Jim Creek Bridge	1945	WSDOT	NR
Cowlitz- Columbia (OR)	433/1	Longview (Lewis & Clark) Bridge	1929	WSDOT	NR/HAER
Cowlitz	3535001	Modrow Bridge	1958	County	NR Nominated
Douglas	26.5ENE	Chief Joseph Dam Bridge	1958	County	NR Nominated
Douglas- Okanogan	17/401	Columbia River Bridge at Bridgeport	1952	WSDOT	NR/HAER
Ferry	2	Curlew Bridge	1908	County	NR
Ferry- Stevens	224	Barstow Bridge	1947	Local	NR
Ferry- Stevens	395/545	Columbia River Bridge at Kettle Falls	1941	WSDOT	NR/HAER
Grays Harbor	101/115	Chehalis River Bridge	1955	WSDOT	NR Nominated
Grays Harbor	101/125W	Hoquiam River Bridge	1928	WSDOT	NR/HAER
Grays Harbor	12/12N	Wishkah River Bridge	1924	WSDOT	NR DE /HAER

County	No.	Name Date B		Owner	Inventory
Jefferson	101/266	Duckabush River Bridge	1934	WSDOT	NR
Jefferson	116/5	Portage Canal Bridge	1951	WSDOT	NR Nominated
Jefferson- Kitsap	104/5	Hood Canal Bridge	1961/1982	WSDOT	NR DE/HAER
King	14S/14N	12th Ave. S. Bridge over Dearborn St.	1911	Local	NR
King	3179	14th Ave. S. (South Park) Bridge	1931	County	NR
King	99/540	Alaskan Way Viaduct	1953	WSDOT	NR Nominated
King	99/560	Aurora Ave. (George Washington Memorial) Bridge	1931	WSDOT	NR/HAER
King	20	Ballard Bridge	1917	Local	NR
King	509A	Baring Bridge	1899	County	NR DE
King	15	Cowen Park Bridge	1936	Local	NR
King	99/530E	Duwamish River/1st Ave. S. Bridge	1956	WSDOT	NR Nominated
King	2605A	Foss River Bridge	1951	County	NR Nominated
King		Fremont Bridge	1917	Local	NR
King	3022	Green River Gorge Bridge	1914	County	NR DE
King	3184	Judd Creek Bridge	1953	County	NR DE
King	5/570	Lake Washington Ship Canal Bridge	1962	WSDOT	NR Nominated
King	1726A	Meadowbrook Bridge	1921	County	NR DE/HAER
King	999W	Miller River	1922	County	NR DE
King	513/12	Montlake Bridge	1924	Local	NR/HAER
King	2550A	Mount Si Bridge	1904/1955	Local	NR Nominated
King	92	North Queen Anne Drive Bridge	1936	Local	NR
King	3015	Patton Bridge	1950	Local	NR
King	1008E	Raging River Bridge	1915	County	NR DE
King	58	Ravenna Park Bridge	1913	Local	NR
King	3139	Saltwater State Park	1934	Local	NR DE
King	13	Schmitz Park Bridge	1935-1936	Local	NR
King	3143	South Twin Bridge	1951	Local	NR DE
King	1023A	Stossel Bridge	1951	County	NR Nominated
King	1834A	Tolt Bridge	1922	County	NR DE
King	3	University Bridge	1919	Local	NR
King	36	Yesler Way Bridge over 4th Ave.	1909	Local	NR DE
Kitsap	305/10	Agate Pass Bridge	1950	WSDOT	NR
Kitsap	303/12	Port Washington Narrows Bridge	1958	WSDOT	NR Nominated
Kittitas	90/110	Lake Keechelus Snowshed Bridge	1951	WSDOT	NR/HAER
Klickitat	110	B-Z Corner Bridge	1957	County	NR Nominated
Klickitat- Hood River (OR)		Hood River-White Salmon Bridge	1924	Port of Hood River	NR DE
Klickitat- Wasco (OR)	197/1	Columbia River Bridge at The Dalles	1954	WSDOT/ ODOT	NR Nominated
Klickitat	142/9	Klickitat River Bridge	1954	WSDOT	NR Nominated
Lewis		Pe Ell Covered Bridge	1934	Local	NR DE
Lincoln- Stevens	25/6	Spokane River Bridge at Fort Spokane	1941	WSDOT	NR/HAER

County	No.	Name	Date Built	Owner	Inventory
Lincoln- Stevens	231/101	Spokane River Bridge at Long Lake Dam	1949	WSDOT	NR /HAER
Mason	3/3	Goldsborough Creek Bridge	1923	WSDOT	NR
Mason	101/403	North Hamma Hamma River Bridge	1924	WSDOT	NR/HAER
Mason	101/404	South Hamma Hamma River Bridge	1924	WSDOT	NR/HAER
Okanogan- Douglas	155/101	Grand Coulee Bridge	1935	WSDOT	NR/HAER
Pierce	509/5	City Waterway (Murray Morgan) Bridge	1911	WSDOT	NR/HAER
Pierce	E-7	East 34th St., Pacific to A St. Bridge	1937	Local	NR
Pierce	165/10	Fairfax (James R. O'Farrell) Bridge	1921	WSDOT	NR/HAER
Pierce	162/6	McMillin (Puyallup River) Bridge	1934	WSDOT	NR/HAER
Pierce	N2	North 21st St. Bridge	1911	Local	NR/HAER
Pierce	N3	North 23rd St. Bridge	1910	Local	NR
Pierce	302/105	Purdy Creek Bridge	1936	WSDOT	NR/HAER
Pierce		Tacoma Narrows ("Galloping Gertie") Bridge Ruins	1940	WSDOT	NR
Pierce	16/110	Tacoma Narrows Bridge	1950	WSDOT	NR DE/HAER
Pierce	1130	Winnifred Street Bridge	1941	Local	NR
Skagit	20/259	Baker River Bridge	1917	WSDOT	NR/HAER
Skagit	40090	Dalles Bridge	1952	County	NR Nominated
Skagit-Island	20/204	Deception Pass Bridge	1935	WSDOT	NR/HAER
Skagit	40039	Rainbow Bridge	1957	County	NR Nominated
Skamania	207	Conrad Lundy Jr. Bridge	1960	County	NR Nominated
Snohomish	537	Red Bridge	1954	County	NR Nominated
Snohomish	529/10W	Snohomish River Bridge	1954	WSDOT	NR Nominated
Snohomish	529/10E	Snohomish River Bridge	1926	WSDOT	NR DE
Snohomish	529/20E	Steamboat Slough Bridge	1954	WSDOT	NR Nominated
Spokane	02	Greene St. Bridge	1955	Local	NR Nominated
Spokane	16	Maple St. Bridge	1958	Local	NR Nominated
Spokane	2404	Marshall Bridge	1949	Local	NR
Spokane	371001001	Monroe St. Bridge	1911	Local	NR/HAER
Spokane		Sunset Boulevard/Latah Creek Bridge	1914	Local	NR
Stevens	25/130	Columbia River Bridge at Northport	1949	WSDOT	NR
Thurston		Capitol Boulevard Bridge	1937	Local	NR
Thurston	5/316	Upper Custer Way I-5 Overcrossing	1956	WSDOT	NR Nominated
Thurston		Lower Custer Way Bridge	1915	Local	NR
Wahkiakum	10	Grays River Covered Bridge	1905/1989	County	NR/HAER
Walla Walla	760136001	Waitsburg Bridge	1925	Local	NR
Walla Walla	933700012	Johnson Bridge	1929	County	NR
Whatcom	20/323	Gorge Creek Bridge	1955	WSDOT	NR Nominated
Whatcom	140	Middle Fork Nooksack River Bridge	1915	County	NR
Whitman		Harpole (Manning-Rye) Bridge	1922	Private	NR/HAER
Yakima	485	Toppenish-Zillah Bridge	1947	Local	NR

Table does not include railroad and pedestrian bridges, nor bridges built exclusively to carry water or sewer pipes, nor demolished bridges, nor tunnels.

The following Category II (County and state) bridges are of Local historic or engineering significance but are not eligible for or listed in the National Register. This list is current as of June 2002.

No.	Name	nme Date Built Owner		County
219	Hooper Bridge	1911/1995	Adams	
Lind2	Lind Coulee-Nielsen St.	1912	Local	Adams
198	Batum-Rocky Coulee Bridge	1914	County	Adams
142	North Lund Bridge	1914	County	Adams
201	Rock Creek Bridge	1914	County	Adams
195	Lauer North Bridge	1914	County	Adams
23	Kiesner Bridge	1915	County	Adams
160	Hatton Two Bridge	1915/1959	County	Adams
186	Schragg Bridge	1917	County	Adams
180	Kisler Bridge	1918	County	Adams
184	Kagele Bridge	1920	County	Adams
Asotin2	Asotin County Memorial Bridge	1920	Local	Asotin
12/915	Snake River/Clarkston Bridge	1939	WSDOT	Asotin
12/408	Prosser Bridge	1931	WSDOT	Benton
603	Plain Bridge (currently closed to traffic)	1909/1927	County	Chelan
408	Peshastin Creek Bridge (Sanders)	1920	County	Chelan
503	Old Griffith Bridge	1921	County	Chelan
406A	Dryden	1927	County	Chelan
Chelan1	Chelan Bridge	1927	Local	Chelan
401	West Cashmere	1929	County	Chelan
305	Monitor Bridge	1930	County	Chelan
2/226N	Wenatchee River Bridge	1929	WSDOT	Chelan
97/359	Knapps Hill Tunnel	1936/1968	WSDOT	Chelan
2/108	Tunnel	1937	WSDOT	Chelan
207/4	Wenatchee River Bridge	1940	WSDOT	Chelan
101/334	Elwha River Bridge	1926/1959	WSDOT	Clallam
11200 Br.1	Quillayute Road Bridge	1929/1962	County	Clallam
101/308	Calawah River Bridge	1938	WSDOT	Clallam
21	LaCenter Bridge	1923	County	Clark
26	Betts Bridge	1935/1949	County	Clark
503/6	Salmon Creek Bridge	1923	WSDOT	Clark
5/36E	East Fork Lewis River Bridge	1936	WSDOT	Clark
5/40W	Lewis River Bridge	1940	WSDOT	Clark
018620001	Beulah Drive Separation (Buland Bridge)	1900	County	Cowlitz
56930001	Toutle River Bridge	1935	County	Cowlitz

No.	Name	Date Built	Owner	County
	H II 1/D 1D:1	1040	G	F
11	Hedlund/Boyd Bridge	1940	County	Ferry
11	Sherman Creek Bridge	1940	County	Ferry
12/802	Patasha Creek Bridge	1920	WSDOT	Garfield
126/102	Owsley Bridge	1940/1949	WSDOT	Garfield
209	6 North East/Ruff Bridge	1914	County	Grant
168	Grandview Bridge	1920/1960	County	Grant
255	East Weber Coulee Bridge	1938	County	Grant
254	West Weber Coulee Bridge	1938	County	Grant
12/12N	Wishkah River Bridge	1925/1945	WSDOT	Grays Harbor
9641/1.7	Sickman Ford Bridge	1929/1999	County	Grays Harbor
4599/0.2	Panhandle Bridge	1930/1985	County	Grays Harbor
12/176	Black River Bridge	1932	WSDOT	Grays Harbor
Aberdeen5	Sixth Street Bridge	1937	Local	Grays Harbor
9710/6.4	Satsop River Bridge	1938	County	Grays Harbor
101/01=		4004		
101/217	Hoh River Bridge	1931	WSDOT	Jefferson
101/256	Big Quilicene River Bridge	1936	WSDOT	Jefferson
3130	Alv T. Bridge	1914/1970	County	King
404B	Novelty Bridge	1920/2000	County	King
1726A	Meadowbrook Bridge	1921/1971	County	King
1834A	Tolt Bridge	1922/1968	County	King
3188	Newaukum Creek Bridge	1927	County	King
3215	Duwamish 99	1928	County	King
1071A	Kenmore Bridge	1938/1970	County	King
509/103	Younglove Creek Bridge	1929/1996	WSDOT	King
202/60	Snoqualmie River Bridge	1931	WSDOT	King
169/8	Green River (Dan Ey) Bridge	1932	WSDOT	King
99/574	North 63rd Street Overcrossing	1932	WSDOT	King
2/116	South Fork Skykomish River Bridge	1938	WSDOT	King
99/530	1st Avenue South Bridge (Duwamish River)	1956/1998	WSDOT	King
513/14	Pedestrian U.S. Undercrossing	1900	WSDOT	King
303/4	Manette Bridge	1930/1949	WSDOT	Kitsap
90/132S	Yakima River Bridge	1917/1930	WSDOT	Kittitas
906/103	Hyak Creek Bridge	1928	WSDOT	Kittitas
10/142	Teanaway River Bridge	1930	WSDOT	Kittitas
97341	Thorp Highway Bridge	1936	County	Kittitas
3112	Railroad Street Bridge	1937/1991	County	Kittitas

No.	Name	Date Built		County
14/222	Horsethief Canyon Bridge	1931	WSDOT	Klickitat
14/212	Klickitat River Bridge	1933	WSDOT	Klickitat
14/215	tunnel	1933	WSDOT	Klickitat
14/216	Lyle Tunnel No. 7	1933	WSDOT	Klickitat
109	Winegartner Bridge	1940/1957	County	Klickitat
141/5	White Salmon River Bridge	1940	WSDOT	Klickitat
54	Walter Annonen Bridge	1910/1961	County	Lewis
108	Jones Bridge	1917/1974	County	Lewis
109	Mineral Creek Bridge	1920/1962	County	Lewis
36	Coughlin Bridge	1922/1966	County	Lewis
87	Mays Bridge	1922	County	Lewis
90	Teitzel Bridge	1922/1941	County	Lewis
508/28	Tilton River Bridge	1923/1940	WSDOT	Lewis
1	Garnet Bridge	1924/1964	County	Lewis
6/115	South Fork Chehalis River Bridge	1925	WSDOT	Lewis
97	Gish Bridge	1926/1996	County	Lewis
20	Newaukum River Bridge	1926	County	Lewis
98	Guerrier Bridge	1927	County	Lewis
99	Hendrickson Bridge	1927	County	Lewis
507/8	Skookumchuck River Bridge	1928	WSDOT	Lewis
6/105	Chehalis River Bridge	1931	WSDOT	Lewis
117	Lake Creek Bridge	1936	County	Lewis
6/123	Chehalis River Riverside Bridge	1939	WSDOT	Lewis
143 27221	Reith Bridge	1911/1983	County	Lincoln
48331	Crystal Springs Bridge	1916	County	Lincoln
14010336	Kennedy Creek Bridge	1917	County	Mason
101/418	Skokomish River Bridge	1932	WSDOT	Mason
155/111	Okanogan River Bridge	1923	WSDOT	Okanogan
20/624	Methow River Bridge	1929/1950	WSDOT	Okanogan
20/651	Bonaparte Creek Bridge	1933	WSDOT	Okanogan
153/20	Methow River Bridge	1935	WSDOT	Okanogan
947001	Fern Creek Bridge	1916	County	Pacific
48441	Lebam Bridge	1917	County	Pacific
6/12	Forks Creek Bridge	1918/1939	WSDOT	Pacific
6/8	Willapa River Bridge	1930	WSDOT	Pacific
101/3	Fort Columbia Tunnel	1932	WSDOT	Pacific
3705	Ione Bridge (approaches rebuilt 1967)	1932/1967	County	Pend Oreille
31/42	Slate Creek Bridge	1933	WSDOT	Pend Oreille
	·			
18164-A	Ohop Creek Bridge	1919	County	Pierce

No.	Name	Date Built	Owner	County
18164-B	Ohop Creek Overflow Bridge	1919	County	Pierce
167/20E	Puyallup River Bridge	1925/1951	WSDOT	Pierce
2424-A	Stuck River Bridge	1927	County	Pierce
509/101	F.B. Hoit No. 3/Dash Point Bridge	1929	WSDOT	Pierce
18204-A	Puyallup River Bridge	1931	County	Pierce
123/106	tunnel	1935	WSDOT	Pierce
162	NP Railway Overcrossing	1936	WSDOT	Pierce
5/345E	Nisqually River Bridge	1937/1948	WSDOT	Pierce
24164-A	Mashell River Bridge	1937	County	Pierce
14203-A	Squally Creek Bridge	1937	County	Pierce
123/104	Deer Creek Bridge	1938	WSDOT	Pierce
19204-D	Peterson Road Bridge	1939	County	Pierce
509/2	Hylebos Waterway Bridge	1939/2000	WSDOT	Pierce
9/210	South Fork Nookachamps Creek Bridge	1920	WSDOT	Skagit
11/4	Samish River Bridge	1920	WSDOT	Skagit
40111	BN Overpass	1925	County	Skagit
40152- 40153	Guemes Island Ferry Dock Bridge	1925/1996	County	Skagit
5/709	2nd Street Undercrossing	1929/1954	WSDOT	Skagit
40070	Marblemount Bridge	1930	County	Skagit
40099	Government Bridge	1930	County	Skagit
40156	Carpenter Creek Bridge	1934	County	Skagit
40114	Samish River Bridge	1934	County	Skagit
14/128	Tunnel No. 1	1937	WSDOT	Skamania
14/129	Tunnel No. 2	1937	WSDOT	Skamania
14/130	Tunnel No. 3	1937	WSDOT	Skamania
14/133	Tunnel No. 4	1937	WSDOT	Skamania
14/134	Tunnel No. 5	1937	WSDOT	Skamania
old 103	Thomlee Bridge	1913	County	Snohomish
42	Jim Creek Bridge	1914	County	Snohomish
5	Pilchuck River Bridge	1914/1996	County	Snohomish
247	Portage Creek Bridge	1922/1972	County	Snohomish
91	South Slough Bridge	1922	County	Snohomish
414	Sauk River Bridge	1930/1980	County	Snohomish
44	Machias—OK Bridge*	1931	County	Snohomish
102	Granite Falls Bridge	1931	County	Snohomish
529/10E	Snohomish River Bridge	1927	WSDOT	Snohomish
529/20W	Steamboat Slough Bridge	1927/1954	WSDOT	Snohomish
2/35	Skykomish River Bridge	1932	WSDOT	Snohomish
2/40	South Fork Skykomish River Bridge	1933	WSDOT	Snohomish
5/670W	Stillaguamish River Bridge	1933	WSDOT	Snohomish
2/48	Barclay Creek Bridge	1934	WSDOT	Snohomish
2/115A	South Fork Skykomish River Bridge	1939	WSDOT	Snohomish

No.	Name	Date Built	Owner	County
2/26	Sultan River Bridge	1940	WSDOT	Snohomish
2/30	Wallace River Bridge	1940	WSDOT	Snohomish
2407	Heek Deed Drider	1010/1064	Country	Cualana
3407	Hatch Road Bridge	1919/1964	County	Spokane
3404	Argonne Road Bridge	1920/1973	County	Spokane
3806	North Road Overcrossing	1935	County	Spokane
3612	Francis Avenue Bridge	1939	County	Spokane
290/4	West Trent (Spokane River) Bridge	1917	WSDOT	Spokane
254	Arden Bridge	1917	County	Stevens
224	Barstow Bridge	1947/1986	County	Stevens
D-1 34019	Durgin Road Tunnel	1912	County	Thurston
15	Salmon Creek Bridge	n.d.	WSDOT	Wahkiakum
4/110	Grays River Bridge	1938	WSDOT	Wahkiakum
4/120	Skamokawa Creek Bridge	1939	WSDOT	Wahkiakum
7	Mid-Valley Creek (Peterson Road) Bridge	1950	County	Wahkiakum
•	ind valley cross (reterior result) bridge	1,00	County	,,
3959	Dell Sharp Bridge	1914	County	Walla Walla
6910	Whiskey Creek (Substation) Bridge	1916	County	Walla Walla
6616	Evans Bridge	1920	County	Walla Walla
9319	Lowden Bridge	1920	County	Walla Walla
9337	Johnson (Touchet River) Bridge	1929	County	Walla Walla
1707	Reese Station Bridge	1935	County	Walla Walla
12/619	Walla Walla River Bridge	1917/1933	WSDOT	Walla Walla
12/624	Touchet River Bridge	1919/1937	WSDOT	Walla Walla
12/630	Woodward Creek Bridge	1919/1937	WSDOT	Walla Walla
12/631	Woodward Creek Bridge	1919/1937	WSDOT	Walla Walla
12/660	Dry Creek Bridge	1920/1969	WSDOT	Walla Walla
148	South Fork of the Van Zandt Bridge	1927/1974	County	Whatcom
1	Little Squalicum Bridge	1933/1955	County	Whatcom
252	Nooksack River Bridge	1934/1955	County	Whatcom
504/503	Gooseberry Point/Lummi Island Ferry Bridge	1950/1987	County	Whatcom
542/30	North Fork of the Nooksack River Bridge	1931	WSDOT	Whatcom
0.2700	Trouble Total of the Trouble Turion Bridge	1,01		,, , , , , , , , , , , , , , , , , , ,
126000077	Seltice Bridge	1912	County	Whitman
2-17	Staley No. 3 Bridge	1912	County	Whitman
2-21	Edmondson Bridge	1914	County	Whitman
1-26	Kenova Bridge	1916	County	Whitman
1-108	McLead Bridge	1916/1969	County	Whitman
3-36	White Elephant Bridge	1917	County	Whitman
			_	
436	Old Naches Bridge	1918	County	Yakima
801	Old Naches Bridge	1918	County	Yakima

No.	Name	Date Built	Owner	County
398	Parker Heights Bridge	1919	County	Yakima
401	Zillah Heights Bridge*	1920/1965	County	Yakima
460	Old Naches Road Bridge	1922	County	Yakima
786	Powerhouse (Naches River) Bridge	1922	County	Yakima
448	Englewood Bridge	1930	County	Yakima
163	Country Club Bridge	1938	County	Yakima
410/220	Little Naches River Bridge	1928	WSDOT	Yakima
82/114N	Yakima River Bridge	1932	WSDOT	Yakima
12/317	Tieton River No. 1 Bridge	1933	WSDOT	Yakima
12/316	Tieton River No. 2 Bridge	1933	WSDOT	Yakima
12/308	Rimrock Tunnel	1936	WSDOT	Yakima

Examples of Historic Bridge Rehabilitation Projects

Grays River Covered Bridge (built 1905), Wahkiakum County, WA

Bridge Type: Timber Howe through truss span with steel tension rods, tin roof, and

cedar siding

Rehabilitation Cost: \$343,705 Estimated Cost of New Bridge: about the same as

rehabilitation

Project Summary: Retained the existing center pier, replaced the truss (upper and lower

chords) with glue laminated members, salvaged existing tension rods, bearing plates, other hardware, and materials from the existing cover

of the bridge to be reused in the reconstruction.

Second Street Bridge (built 1886), Allegan, MI

Bridge Type: Double-intersection Pratt through truss (Whipple-Murray truss)

Rehabilitation Cost: \$500,000 Estimated Cost of New Bridge: \$1.5 million

Project Summary: Disassembled truss and replaced deteriorated members with new ones

matching the originals; used bolts rather than rivets, matching the original appearance; changed to carry one-way traffic; received exemption from

AASHTO standards for historical considerations.

Smithfield Street Bridge (built 1883), Pittsburgh, PA

Bridge Type: Steel lenticular truss

Rehabilitation Cost: \$16 million Estimated Cost of New Bridge: \$30 million

Project Summary: Replaced deteriorated bridge deck and railings; retrofitted structural

eyebars to eliminate fatigue cracking; repaired masonry and mortar on piers and abutments; installed a new lighting scheme to illuminate the

bridge and to serve as a city landmark and gateway.

Cornish/Windsor Covered Bridge (built 1966), Windsor, VT, and Cornish City, NH

Bridge Type: "Town Lattice" covered timber

Rehabilitation Cost: \$4.3 million Estimated Cost of New Bridge: \$5.5 million

Project Summary: Replaced overstressed structural members with new prefabricated

glue-laminated timbers (solid timbers of the original size are not commercially available); preserved the bridge's structural system,

appearance, and setting.

West Fifth Street Bridge (built 1925), Ashtabula, OH

Bridge Type: Single-leaf Brown (Mystic-type) bascule

Rehabilitation Cost: \$3 million Estimated Cost of New Bridge: \$6 million

Project Summary: Disassembled the moving span; replaced truss span stringers and

floorbeams; replaced deteriorated lower chord connections; replaced bridge deck; repaired concrete and steel railing; constructed new fenders, abutment, and operator's house; installed new electrical and mechanical

systems; rebalanced the structure by increasing the weight of the

counterweight.

Source: Jester, Thomas C. "Preserving Historic Bridges," CRM Supplement,

volume 15, number 2, 1992. Washington, D.C.: U.S. Department of

the Interior, National Park Service.

Other examples of historic bridge rehabilitation projects may be found in *The Society of Industrial Archaeology Newsletter*, volume 18, number 1, 1989. Washington, D.C.: National Museum of History.

Sample Memorandum of Agreement on Projects Affecting Historic Bridges

		The Federal Highway Administration (FHWA) has determined that the Project will have an effect upon a historic property (eligible for/listed in) Register of Historic Places; and
Preser	vation (the FHWA has requested the comments of the Advisory Council on Historic Council) pursuant to the National Historic Preservation Act of 1966, as amended, nenting regulations;
and the	e Counc	EFORE, the FHWA the Washington State Historic Preservation Officer (SHPO), cil agree that the undertaking shall be implemented in accordance with the ulations in order to take into account the effect of the undertaking on the rty.
		StipulationsBridge
F HW	A will e	nsure that the following measures are carried out:
1.	of dem its pres approp State I	Bridge will be documented prior to its removal (in the case nolition as a proposed alternative) so that there will be a permanent record of sent appearance and history. The level of documentation shall be determined briate (as per agreement) in consultation between the SHPO and the Washington Department of Transportation (WSDOT). Copies of the documentation will be led to the SHPO.
2.	In con	sultation with the SHPO, the Bridge shall be marketed ows:
	a.	WSDOT will prepare an information package containing structure data, photographs, location map, information on its historic significance, estimated cost for relocation and requirements regarding relocation, rehabilitation, and maintenance. The package shall also include the relevant section of <i>The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings</i> . Respondents expressing an interest in acquiring the bridge shall be required to submit a relocation and reuse plan and specifics regarding the new site location.
	b.	A grant to defray the costs of disassembly and relocation, equal to the estimated cost of demolition of the bridge shall be offered to any recipient who will agree to abide by preservation covenants.

	c.	The Bridge will be advertised and a schedule for receiving and reviewing offers will be developed in consultation with the SHPO. All offers shall be reviewed in consultation with the SHPO.				
	d.	The Bridge will be offered for relocation with preference to potential recipients who agree to abide by preservation covenants (as developed in consultation with the SHPO).				
3.	the g agree whice acco WSI	pplicable, an Agreement to Execute Preservation Covenants shall be signed by grantee at the same time that the bridge bill of sale or transfer is executed. (Such ement will be recorded in the office of the Clerk and Recorder of the county in the bridge is currently located. The preservation covenant will be executed ording to the conditions of the Agreement to Execute Preservation Covenants). DOT or the present owner shall abide by an Interim Maintenance Plan to ensure that Bridge is maintained in satisfactory condition prior to transfer.				
4.	in its	e Bridge is relocated, the SHPO shall reevaluate the property s new location and make a recommendation to the Secretary of Interior concerning ontinued eligibility to the National Register of Historic Places.				
5.	reha	ere is no acceptable offer that will conform to the requirements of relocation, bilitation, and maintenance, the FHWA with the approval of the SHPO may nit transfer of all or part of the property without preservation covenants.				
6.		o new owner can be found to relocate the bridge, it shall remain the property VSDOT and may be disposed of or demolished as deemed appropriate.				

- 7. If a dispute arises regarding implementation of this Agreement, the signatory parties will consult with the objecting party to resolve the dispute. If any consulting party determines that the dispute cannot be resolved, the FHWA shall request further comments of the Council pursuant to its regulations.
- 8. Failure to carry out the terms of this Agreement requires that the FHWA again request the Council's comments. If the FHWA cannot carry out the terms of this Agreement, it will not take or sanction any action to make an irreversible commitment that would result in an adverse effect with respect to the eligible property covered by the Agreement or that would foreclose the Council's considerations of modifications or alternatives that could avoid or mitigate the adverse effect on the property, until the commenting process has been complete.
- 9. If any of the signatories to this Agreement determine that the terms of the Agreement cannot be met or believe a change is necessary, that party will immediately request the consulting parties to consider an amendment or addendum which will be executed in the same manner as the original Agreement.

Within 90 Days after carrying out the terms of the Agreement, the FHWA shall report to all signatories on the actions taken.

Execution of this Memorandum of Agreement evidences that the FHWA has afforded the Council a reasonable opportunity to comment of the Project and its effects on historic properties and that the FHWA has taken into account the effect of its undertaking on Historic properties.					
Signatories					
Federal Highway Administration	Date				
Washington State Historic Preservation Officer	Date				
Concur:					
Advisory Council on Historic Preservation	Date				
Washington State Department of Transportation	Date				



Discipline Report Checklist Cultural Resources

Projec	t Name	:			Job Number:	
Conta	ct Name	e:				
Date F	Receive	d:			Date Reviewed: Reviewer:	
(SAT	= Satisf	factory;	INC =	Incomp	plete; MIS = Missing; N/A = Not Applicable)	
Answe	Answers are required for questions which have no N/A box.					
I. Introduction						
SAT	INC	MIS	N/A			
				A.	Identified CR survey and research methods.	
				B.	Identified information resources (reports, agency contacts, etc.)	
				C.	Provided project vicinity map(s) which include:	
					1. Project alternatives and ROW lines.	
					2. Significant geographic features and landmarks.	
					3. Jurisdictional boundaries.	
					4. Identified historic properties (National Register – listed and eligible properties) that are located within the project's area of potential effects.	
II.	Affec	ted En	vironr	nent		
SAT	INC	MIS	N/A			
				A.	Provided a description of the affected historic properties which included information on the characteristics that qualify each property for inclusion in the National Register.	

III.	Impa	cts			
SAT	INC	MIS	N/A		
				A.	Identified the potential impacts from each project alternative on each historic property. The report considered construction and operational impacts from project development.
				В.	Identified the cumulative environmental effects of the proposed actions, in the context of other actions in the surrounding environs.
IV.	Mitiga	ation			
SAT	INC	MIS	N/A		
				A.	Suggested possible mitigation measures for each adverse impact addressed in the previous section. A Memorandum of Agreement among consulting parties will be developed and executed to stipulate resolution of adverse effects.
٧.	Sumr	nary			
	•	must in		_	detail so that it can be included in the EIS with only minor iclude:
SAT	INC	MIS	N/A		
				A.	Summary of the analysis done and conclusions reached.
				B.	The objectives of the project.
				C.	Historic and cultural resources present in project area.
				D.	Impacts of all alternatives, including the no-build alternative.
				E.	Recommended mitigation.
				F.	Comparison of alternatives based on impacts and cost- effectiveness of mitigation.
Genera	al Comi	ments: _			
Februa	ary 1999	9			

457.01	Introduction
457.02	Applicable Statutes and Regulations
457.03	Policy Guidance
457.04	Interagency Agreements
457.05	Technical Guidance
457.06	Permits and Approvals
457.07	Non-Road Project Requirements
457.08	Exhibits

Key to Icon



Web site.*

457.01 Introduction

This chapter discusses considerations related to potential social, economic and environmental justice impacts of a transportation project, including the following categories:

- Social Impacts on community cohesiveness, neighborhood patterns, recreation or community facilities.
- *Economic* Impacts to the local economy and long-term impacts, which may lead to significant economic loss of business and employment.
- *Housing* Impacts on established housing areas.
- *Relocation* Impacts that would require relocation of housing, businesses, farms, non-profit organizations or personal property.

For related information on environmental justice issues, see Chapter 458.

(1) Summary of Requirements

Under NEPA implementing regulations, social and economic impacts of transportation projects must be assessed and documented. Relocation policy is provided in the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 as amended.

SEPA does not specifically require analysis of these issues in environmental documents, but it is assumed that these issues will be taken into account under the general umbrella of state policy.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

ADA Americans with Disabilities Act
CIA Community Impact Assessment

EJ Environmental Justice LEP Limited English Proficiency

Title VI Title VI of the Civil Rights Act 0f 1964 USDOJ United States Department of Justice

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Joint Development – Participating jointly with a local jurisdiction or private party in an element of the project or impact mitigation.

457.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to social, economic, and relocation issues. See **Appendix D** for a list of statutes referenced in the EPM.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), <u>42 USC 4321 et seq.</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as social and economic impacts are given due weight in project decision-making.

Federal implementing regulations are in 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ).

Under the State Environmental Policy Act (SEPA), <u>Chapter 43.21C RCW</u>, <u>with</u> implementing rules (Chapter 197-11 WAC), it is assumed that "the general welfare, social, economic, and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions."

State implementing regulations are in Chapter 197-11 WAC and Chapter 468-12 WAC (WSDOT).

For details on NEPA/SEPA procedures, see **Chapter 410** and **Chapter 411**.

(2) Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, and national origin in the provision of benefits and services resulting from federally assisted programs and activities. Gender was added in a later amendment. Title VI touches every aspect of WSDOT's processes, mandating WSDOT to provide equal access to transportation-related processes for all people in the state. This includes equal participation in the public involvement process.

(3) Uniform Relocation Assistance and Real Property Acquisition Policies Act

This 1970 statute, amended in 1987, establishes a uniform policy for the fair and equitable treatment of individuals and businesses displaced as a direct result of programs or projects undertaken by a federal agency or with federal financial assistance.

The primary purpose of this Act is to ensure that such persons shall not suffer disproportionate adverse impact as a result of programs and projects designed for the benefit of the public as a whole and to minimize the hardship of displacement.

The Act is available at FHWA's web site:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Justice, then The Facts, then Legislation and Guidance.

Or by direct link:



http://www.fhwa.dot.gov/realestate/act.htm

(4) American with Disabilities Act and Age Discrimination Act

Disabled individuals are protected under Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act (ADA). The Age Discrimination Act of 1975 protects the elderly.

President's Executive Order 13166 – Limited English Proficiency (5)

The President's Executive Order 13166, on Improving Access to Services for Persons with Limited English Proficiency (August 11, 2000), is intended "to improve access to federally conducted and federally assisted programs and activities for persons who, as a result of national origin, are limited in their English proficiency (LEP)." This executive order is online at:



http://www.lep.gov/recip.html

Policy Guidance 457.03

(1) General Guidance

Policy guidance for consideration of social and economic issues is contained in various FHWA documents, such as: 23 USC 109(h); FHWA's Technical Advisory T 6640.8; USDOT Order 5610.2 and FHWA Order 6640.23 addressing Environmental Justice; FHWA's Community Impact Assessment Guidebook; et al. Social and economic considerations are also emphasized through WSDOT's Managing Project Delivery and Executive Order 1028.00 on Context Sensitive Solutions.

Local comprehensive plans may contain policies addressing social issues and/or economic development. These are all good resources to utilize during preparation of studies of the human environment. See also Sections 455.03, 456.03, and 458.03.

(2) **Relocation Policy**

Relocation policy is addressed in the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 as amended.

(3) Limited English Proficiency

To implement Presidential Executive Order 13166, WSDOT and other agencies receiving assistance from the Federal government must take reasonable steps to

ensure that persons with Limited English Proficiency (LEP) have meaningful access to the programs, services, and information those agencies provide. For U.S. Department of Justice policy guidance and other information, please refer to the LEP web site:

http://www.lep.gov/recip.html

USDOT's LEP guidance can be accessed at:

http://www.usdoj.gov/crt/cor/lep/dotlep.htm

Project teams should be aware of this guidance and try to ensure that project information is available to those impacted by a project that have limited proficiency in English. This may mean printing fliers or fact sheets in other languages or having interpreters available at public meetings. Identification of these populations is usually made through census data, contacts with social service agencies, and public involvement.

To implement Presidential Executive Order 13166, WSDOT and other agencies receiving assistance from the Federal government must take reasonable steps to ensure that persons with Limited English Proficiency (LEP) have meaningful access to the programs, services, and information those agencies provide. Please see Section 458.03 for policy guidance from the U.S. Department of Justice and U.S. Department of Transportation.

457.04 Interagency Agreements

None.

457.05 Technical Guidance

Public communication and involvement help to identify the needs, viewpoints, and opinions of stakeholders in transportation projects and is one of the key elements of the FHWA and WSDOT project development process.

WSDOT guidance can be found in this chapter and in the Managing Project Delivery section of the *Design Manual* (M22-01)(Division 1, Chapter 140) located at:

www.wsdot.wa.gov/fasc/engineeringpublications/manuals/designmanual.pdf and on Context Sensitive Solutions located at:

http://www.wsdot.wa.gov/TA/Operations/LocalPlanning/contextsensitivesolutions.html FHWA guidance on public involvement is available online at FHWA's home page:

http://www.fhwa.dot.gov

More information can also be found in the Environmental Justice chapter, Chapter 458.

(1) WSDOT Discipline Reports

WSDOT provides three Discipline Report checklists to assist project staff in preparing the social, economic and relocation impacts sections of environmental documents. If a checklist topic is not applicable, it is helpful to attach the completed checklist to the Discipline Report with an explanation as to why the

particular topic is not included, so the reviewer can see that it has been addressed.

The project team needs to decide whether discipline reports are needed for each of these three areas. Review of the checklists should help to determine whether a discipline report should be done or not. If the majority of the areas on the checklist need explanation, a discipline report is needed. If these areas are potentially controversial, completion of a discipline report becomes more important. Whether a discipline report is done or not, consideration and completion of the checklist items along with accompanying documentation is important.

Depending on the type and complexity of the project, these discipline reports may be separate or combined. If separate, references may need to be made as to where various types of information, such as relocations, can be found. Enough information needs to be provided for the reviewer to understand the affected environment, the potential effects of the project, and whether proposed avoidance and mitigation is adequate and appropriate.

When a low income or minority population has been identified, the Environmental Justice (EJ) checklist should also be used. Environmental justice is often combined with the social discipline report. However, if the analysis of effects to an EJ population is complex, a separate report may be more appropriate. See Chapter 458 for details on environmental justice.

When preparing these discipline reports, team members should coordinate with local agencies in the project area, and with other disciplines such as noise and public involvement to share data and align conclusions.

Data collected for these discipline reports may contain sensitive information. If possible, include aggregate residential and business information in the discipline report, and keep more detailed information in a separate file.

(a) Social Elements

This Discipline Report should address community cohesion and regional and community population characteristics and growth. To give a more complete picture of the human environment and how it may be affected by the project, reference sections of the environmental document, such as noise, air, recreation, public services, pedestrian, transit and bicycle facilities, safety, public involvement and environmental justice. (See checklist in **Exhibit 457-1**, and Step-by-Step guidance in **Exhibit 458-1** and **Exhibit 458-2**.)

The "affected environment" covered by this Discipline Report should include community cohesion (neighborhood population characteristics and linkages with churches, schools and other community facilities and services); parks and recreation activities and facilities; population characteristics and growth (see Section 451.05); government, religious and social facilities and services; pedestrian, transit and bicycle facilities (see also Section 460.05); and environmental justice (Chapter 458) if applicable.

The discussion of population characteristics should specifically identify populations of minority, low income, elderly and disabled in the project area. This may also be done as part of the environmental justice analysis, although environmental justice applies specifically to low-income and minority people. Gathering this data helps to ensure that protected groups are not discriminated against, and provides valuable information for making sure public involvement is inclusive.

(b) Economic Elements

The area's general economic climate, established business districts, and businesses related to transportation facilities should be covered in this Discipline Report (see checklist, **Exhibit 457-2**). Any relocated businesses, which might affect community cohesion, should be identified.

The "affected environment" covered by this Discipline Report includes overall economic climate, farm and business activity, employment, property values, and local economy.

(c) Relocation

This Discipline Report should cover any possible relocation of residences, businesses or personal property caused by the transportation project or its effects. Enough information should be gathered on impacted businesses to be able to identify whether there could be disproportionate impacts on protected populations (see checklist, Exhibit 457-3 and Chapter 458). If information on relocated businesses is combined with the economic discipline report and information on residential relocations is combined with the social discipline report, each discipline report should reference the other.

The "affected environment" covered by this Discipline Report includes population characteristics (such as ethnicity and race, disabled, elderly, family, income level, owner/tenant status); businesses (numbers and types of businesses and farms), employment, availability of replacement sites; and long term stability of the area.

When a low income or minority population has been identified, this is meant to be completed in combination with the Environmental Justice analysis. See **Chapter 458**.

(2) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (October 30, 1987), gives guidance on preparing sections on social, economic, and relocation impacts.

This guidance, summarized below, is available online at FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6680.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(a) Social Impacts

The draft environmental document should discuss the following for each alternative:

- (a) changes in the neighborhoods or community cohesion for various social groups as a result of the proposed action;
- (b) changes in travel patterns and accessibility (e.g., vehicular, commuter, transit, bicycle, or pedestrian);
- (c) impacts on school districts, recreation areas, churches, businesses, and police and fire protection services (including both direct impacts to these entities and indirect impacts of displacing households and businesses);
- (d) impacts of alternatives on highway and traffic safety and on overall public safety:
- (e) social groups especially benefited or harmed by the proposed project, particularly disproportionate impacts to elderly, disabled, non-drivers, transit-dependent, minority, ethnic and low-income groups.

(b) Relocation Impacts

Following is a summary of information regarding households and businesses that should be discussed for each alternative when a proposed project will result in displacements:

- (a) Estimated number and characteristics of households to be displaced. (such as owner/renter, minority, low-income, elderly, disabled.)
- (b) Comparison of available comparable housing within reasonable distance with the housing needs of these households.
- (c) Affected neighborhoods, public facilities, non-profit organizations, unique or culturally specific businesses, special relocation considerations and the measures proposed to resolve these relocation concerns.
- (d) Measures to be taken if available alternate housing is inadequate.
- (e) Estimate of the numbers, descriptions, types of occupancy (owner/tenant), and sizes (number of employees) of businesses and farms to be displaced.
- (f) Description of business or farm products and services, particular requirements, and specific availability of replacement sites or buildings.
- (g) Coordination with local governments, organizations, groups, and individuals regarding residential and business relocation impacts, including any measures or coordination needed to reduce general and/or specific impacts. The report should include a statement that (1) the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and (2) relocation resources are available to all relocatees without discrimination.

(c) Economic Impacts

Where there are foreseeable economic impacts, the draft environmental document should discuss the following for each alternative:

- (a) The economic impacts on the regional and/or local economy such as development, tax revenues and public expenditures, employment opportunities, accessibility, and retail sales.
- (b) Impacts on the economic vitality of existing highway-related businesses (e.g., gasoline stations and motels) and the overall local economy.
- (c) Impacts of the proposed action on established business districts, and any opportunities to minimize or reduce such impacts by the public and/or private sectors.

Joint Development (d)

Where appropriate, the draft environmental document should identify and discuss joint development measures, undertaken by WSDOT in cooperation with a local jurisdiction or private party, that will preserve or enhance an affected community's social, economic, environmental, and visual values.

This discussion may be presented separately or combined with the land use and/or social impacts presentations. The benefits to be derived, those who will benefit (e.g., communities and/or social groups), and the entities responsible for maintaining the measures should be identified.

(3) Other Resources

The following publications on community impacts may be useful in analyzing social and economic impacts.

National Community Impact Assessment Research Design Team – Recommendations for Development of the Strategic Plan. Prepared for FHWA by the Center for Urban Transportation Research, University of South Florida (April 1999).

Community Impact Mitigation Handbook. Publication No. FHWA-PD-98-024 (May 1998).

Community Culture and the Environment. A Guide to Understanding a Sense of Place. 2002, U.S. EPA (EPA 842-B-01-003).

Community Impact Assessment: A Quick Reference for Transportation. Publication No. FHWA-PD-96-036 (September 1996). See description in **Section 458.05.**

The other documents may be available online in the future at FHWA's web site.

Meanwhile, a comprehensive bibliography for community impact assessment and environmental justice can be found at:



http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Justice, then Resources.

Or by direct link:



http://www.fhwa.dot.gov/environment/ejustice/lib/ejbib.pdf

The index of resources is at:



http://www.fhwa.dot.gov/environment/ejustice/lib/index.htm

Also, resources for environmental justice can be found at:



http://wsdot.wa.gov/

Click on Environmental, then Environmental Justice.

Or by direct link:



http://www.wsdot.wa.gov/environment/envJustice/default.htm

457.06 Permits and Approvals

None.

457.07 Non-Road Project Requirements

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

457.08 Exhibits

Exhibit 457-1 – Discipline Report Checklist, Social Elements.

Exhibit 457-2 – Discipline Report Checklist, Economic Elements.

Exhibit 457-3 – Discipline Report Checklist, Relocation.



Discipline Report Checklist Social Elements

Projec	t Name	:				Job Number:
Conta	ct Name	e:				
Date I	Receive	d:			Dat	re Reviewed: Reviewer:
	The fo	llowing ling to c ing its u	checklomplex se whe	ist is grait and re appropries	uidance l type o opriate	plete; MIS = Missing; N/A = Not Applicable) e. Discipline report writers should adjust contents of project. Reviewers should use the checklist . However, all users should be aware of requirements address those areas accordingly.
I.	Studi	es and	Coordi	nation		
1500-	1508 (C	(EQ)), 2	3 CFR			e VI of the Civil Rights Act of 1964, 40 CFR.
SAT	INC	MIS	N/A			
				A.		cribe studies performed and coordination with local cies. Identify agencies and programs administered.
II.	Public	c Involv	ement	/Intera	ction	
SAT	INC	MIS	N/A			
				A.	Desc	cription of public involvement/interaction plan.
					1.	Include any tribal contact and determine if government-to-government consultation is needed.
					2.	Include any targeted outreach to minority, disabled, elderly and low-income populations, as applicable.
					3.	Include any specific efforts to address limited English proficiency, if applicable.

III. Aff	fected Env	vironment
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Report should include a description of each Section 4(f) resource:

SAT	INC	MIS	N/A			
				A.	transi tenan facilit etc.).	munity Cohesion. Describe neighborhood population acteristics (e.g., minority, elderly, disabled, it-dependent, large family, income level, owner/ at status). Access and linkages with community ties/services (churches, schools, community centers, (If a low-income and/or minority population is ified, see Environmental Justice, Section 458 .)
				В.	of par	eation. Describe and show maps of the type and location rks, recreation areas, recreation trails, and natural marks. Include information on:
					1.	Available activities and facilities.
					2.	Use and number of users per activity.
					3.	Unique qualities.
					4.	Statement of national, state, or local significance as determined by official with jurisdiction.
					5.	Access.
					6.	Ownership.
					7.	Section 4(f) and/or 6(f) applicability.
				C.	Regio	onal and Community Growth. Consider:
					1.	Local and regional population - breakdown by towns and communities.
					2.	Population projected changes
						a. Ethnic/racial composition.
						b. Age/family composition.
						c. Income levels/major employment.
						d. Limited English composition.
						e. Disabled composition.
						f. Status of community, if in transition.
				D.	Servi	ces. Discuss:
					1.	Educational facilities and attendance boundaries.
					2.	Religious institutions.
					3.	Social institutions (community centers, fraternal organizations, children's homes, etc.).
					4.	Medical services (hospitals, nursing homes, medical

SAT	INC	MIS	N/A			
					5.	Fire and police protection.
					6.	Public services and utilities (energy, telephone, cable, water, sewer, solid waste, storm water, and others as appropriate).
					7.	Cemeteries.
					8.	Government institutions and national defense installations.
					9.	Other governmental services. Particularly social service/aid programs and locations as relates to proposed action.
				E.	Pedes	trian, Bicyclist, and Transit Facilities.
					1.	Describe location and type of existing facilities, including discussion of local plans.
					2.	State whether local and land use/recreation plans include bike/pedestrian/transit facilities. Include paratransit where appropriate.
					3.	Consider travel times (if available), capacity, circulation, and congestion on other facilities in the region.
					4.	Discuss whether new facilities are proposed, include sufficient information to explain the basis for providing them (e.g., proposed bicycle facility is a link in the local plan, a new bus stop is needed, or sidewalks will reduce project access impact).
					5.	Discuss safety issues as they relate to pedestrians and bicyclists.
					6.	Discuss whether the project has potential to connect existing bike/pedestrian/transit facilities.
				F.	Enviro	onmental Justice.
					1.	Document the presence of low income or minority communities.
						(If low income and/or minority population is identified, refer to Section 458.)

IV.	Impac	ets				
SAT	INC	MIS	N/A			
				A.		munity Cohesion. Consider project effects e community such as:
					1.	Impacts on community life.
					2.	Effects on persons and groups.
					3.	Changes in social relationships/patterns.
					4.	Isolation - community divided or set apart by project.
					5.	Redistribution, influx or loss of population.
					6.	Cutting off streets.
					7.	Separating residences from community facilities.
					8.	Separating adjoining residential areas.
					9.	Isolating areas.
					10.	Increasing automobile dependency.
					11.	Impact to and availability of affordable and accessible housing supply within the study area.
				B.		eation. Consider direct and indirect (growth induced, impacts on:
					1.	Facilities/capacity.
					2.	Access.
					3.	Aesthetics.
					4.	Air quality.
					5.	Noise.
					6.	Water.
					7.	Land use in the vicinity.
				C.	Cultu	iral Resources
					1.	Describe any impacts to tribal areas i.e.: usual and customary (reference Cultural Resources discipline report.).
				D.	Recre	eational and Community Growth. Consider:
					1.	Population changes caused by the proposed project (CEQ 1508.8(b)). Include estimates on the effects such changes will have on the resource base in the study area. (Where a project induces significant growth, discuss the impacts of such growth under the appropriate headings in this outline. See also E.)
					2.	Effect on characteristics of population in the study area.

SAT	INC	MIS	N/A			
						a. Ethnic/racial composition.
						b. Age/family composition.
						c. Income levels/major employment.
					3.	Effect on population growth patterns.
				E.		es. Consider the following impacts on each services listed in II.D., above.
					1.	Changes in service travel times.
					2.	Circuitry of access.
					3.	Changes in service area.
					4.	Potential new or additional public facilities and services needed.
				F.	Pedesti	rian, Transit and Bicyclist Facilities. Consider:
					1.	Use projections/capacity - design year data.
					2.	Safety/travel time.
					3.	Circulation changes.
					4.	How changes in accessibility will affect facility users.
					5.	Describe provisions included in the project for a reasonable alternative route, or demonstrate that such a route exists.
٧.	Mitiga	tion				
Consid	der:					
SAT	INC	MIS	N/A			
				A.	Comm	unity Cohesion. Describe:
					1.	Mitigation measures and commitments.
					2.	Mitigation measures considered or available but not included, with reasons why.
				B.	Recrea	tion. Describe:
					1.	Mitigation measures and commitments, including 6(f) if applicable.
					2.	Mitigation measures considered or available but not included, with reasons why.

SAT	INC	MIS	N/A		
				C.	Regional and Community Growth. Mitigation is normally not applicable. (See "Land Use.")
				D.	Services. Describe:
					1. Mitigation measures and commitments.
					2. Mitigation measures considered or available but not included, with reasons why.
				E.	Pedestrian, Transit and Bicyclist Facilities. Discuss any proposed measure to avoid or reduce adverse impacts on the facility and its users.
				F.	Describe efforts to mitigate impacts on any potentially impacted low income and/or minority communities in the environmental process. (This can be done in separate EJ report)
VI.	Sumn	nary			
detail The su	so that i immary	it can be should	e includ include	ed in th	onclusions reached. The summary should include enough ne environmental document with only minor modification.
SAT	INC	MIS	N/A		
				A.	The objectives of the project.
				B.	Current land use patterns.
					 Include any impact on usual and accustomed areas used by tribes.
				C.	Impacts of all alternatives including the no-build alternative.
				D.	Recommended mitigation.
				E.	Comparison of alternatives based on impacts and cost effectiveness of mitigation.
				F.	Describe public involvement /interaction plan, types of public involvement, timing.
Gener	al Com	ments:			



Discipline Report Checklist Economic Elements

Projec	t Name	:			Job Number:
Conta	ct Name	e:			
Date I	Receive	d:			Date Reviewed: Reviewer:
	Answer The for accord adjusti	ers are r llowing ing to c ng its u	equired checkl omplex se whe	for quist is gaity and	= Incomplete; MIS = Missing; N/A = Not Applicable) uestions that have no N/A box. guidance. Discipline report writers should adjust contents ad type of project. Reviewers should use the checklist ropriate. However, all users should be aware of requirements and address those areas accordingly.
l.	Studie	es and	Coordi	natior	n
•			-	•	ghway Research Report-122, Summary and Evaluation of way Improvements.)
SAI	INC	MIS	IV/A	A.	Field interviews with employers in impacted area. Include small, large, minority owned and any unique businesses.
					1. Discuss what kind of adverse impact any relocations could have on employees as well as local economy; i.e.: where do employees live? How do they get to work?
				B.	Residents.
				C.	County and city government officials.
				D.	Local business and economic leaders.
				E.	Studies of existing conditions.
				F.	New industrial and commercial development in various planning or construction phases.
				G.	Market feasibility studies.
				H.	Real estate transactions.
				I.	Property assessment valuations.
				J.	County tax rolls.

II.	Affect	ed Env	ironme	ent		
SAT	INC	MIS	N/A			
				A.	Descri	be general economic climate of the area.
				В.		e established business districts and transportation y related business.
III.	Impac	ts				
SAT	INC	MIS	N/A			
				A.	Descri	be effects on overall business activity of:
					1.	Loss of productive business or farm property through induced development.
					2.	Increases or decreases in travel time for shipment of goods.
					3.	Changes in business and shopping patterns as a result of changes in accessibility; e.g., effects on highway related businesses.
					4.	Loss of business due to construction of alternative on new alignment including any businesses important to low-income and/or minority populations.
				B.		be increase, decrease, or change in location in nent jobs after completion, due to:
					1.	Basic industry or commercial location and relocation.
					2.	Bypass diversions.
					3.	Barrier effects.
					4.	Induced growth or development.
					5.	Facility relocation.
				C.	Descri econor	be effects on property value trends and the local my of:
					1.	Traffic volumes.
					2.	Competing enterprises and centers.
					3.	Visibility.
					4.	Physical access to facility or property.
					5.	Altered commercial sales potential.
					6.	Reduced revenue from loss of taxable property to highway right of way.
					7.	Changed revenue from in-migration or out-migration of high tax-producing land users.

SAT	INC	MIS	N/A		
				D.	Describe these effects on the region:
					1. Effects on bypassed communities and/or businesses.
					2. Effects on areas in proximity to the facility.
					3. Effects on areas near interchanges or transit stops.
IV.	Mitiga	ition			
SAT	INC	MIS	N/A		
				A.	Mitigation measures and commitments; e.g., access control, commitments to minority/low income affected community.
				В.	Mitigation measures considered or available but not included, with reasons why.
V.	Const	ruction	Activi	ty Impa	acts
•	-				action of the project are to be addressed in a "Construction
approp	oriate, f	or inclu	sion in		vironmental document. Provide the following information, as etion.)
approp	oriate, f	or inclu	sion in	that sec	Under Impacts , consider temporary construction effects, such
approp	inc	or inclus MIS	N/A	that sec	Under Impacts , consider temporary construction effects, such as:
approp	INC	or inclus MIS	N/A	that sec	Under Impacts, consider temporary construction effects, such as: 1. Construction expenditures. 2. Temporary construction revisions to business or farm
approp	INC	MIS	N/A	that sec	Under Impacts, consider temporary construction effects, such as: 1. Construction expenditures. 2. Temporary construction revisions to business or farm access.
approp	INC	MIS	N/A	that sec	Under Impacts, consider temporary construction effects, such as: 1. Construction expenditures. 2. Temporary construction revisions to business or farm access. 3. Temporary jobs created during construction. 4. Impact of construction expenditures on sales tax
approp	INC	MIS	N/A	A.	Under Impacts, consider temporary construction effects, such as: 1. Construction expenditures. 2. Temporary construction revisions to business or farm access. 3. Temporary jobs created during construction. 4. Impact of construction expenditures on sales tax revenues (consider multiplier effect).

VI.	Sumn	nary							
Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the environmental document with only minor modifications.									
SAT	INC	MIS	N/A						
			A.	The objectives of the project.					
				1. Current economic activity and patterns.					
				2. Impacts of all alternatives including the no build.					
				3. Recommended mitigation.					
			В.	Alignment with any local comprehensive and/or neighborhood plans.					
			C.	Comparison of alternatives based on impacts and cost effectiveness of mitigation.					
Gener	al Com	ments:							



Discipline Report Checklist Relocation

Projec	oject Name:Job Number:											
Contac	Contact Name:											
Date F	ate Received: Date Reviewed: Reviewer:											
	(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable) Answers are required for questions that have no N/A box.											
	To be used if project displaces homes and/or businesses.											
The following checklist is guidance. Discipline report writers should adjust contents according to complexity and type of project. Reviewers should use the checklist adjusting its use where appropriate. However, all users should be aware of requirements that are driven by regulations and address those areas accordingly.												
l.	Studies and Coordination											
(Refer to Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 as amended in 1987.) Consider:												
SAT	INC	MIS	N/A									
П			- "	A.	Census data.							
				B.	Social/economic reports.							
				C.	Contact with community leaders and local officials.							
				D.	Field surveys.							
II.	Δffect	ed Env	ironme	nt								
	Allect	ea Liiv		<i>-</i> 1110								
Discus	Discuss (if necessary):											
SAT	INC	MIS	N/A									
				A.	Characteristics of the affected area, such as minority and ethnic, disabled, elderly, family size, income level, owner/tenant status, and long-term stability of the area (e.g., is the area in transition?)							
				B.	Numbers, descriptions, types of occupancy, and sizes (number of employees) of business and farms within the area. Describe business or farm products or services, particular requirements, specific availability of replacement sites/buildings.							

III.	Impacts							
SAT	INC	MIS	N/A					
				A.	housel	ential impacts. Include an estimate of the number of holds to be displaced and any anticipated relocation ems to the extent such information is available. iibe:		
					1.	Dwelling types(s); i.e., single-family, multi-family, Section 8 or other subsidized housing, etc.		
					2.	Occupancy type (owner/tenant).		
					3.	Resident characteristics.		
						a. Elderly.		
						b. Disabled.		
						c. Minorities (racial, ethnic, or religious groups).		
						d. Income level (low, middle, high).		
						e. Large or small families.		
						f. Length of occupancy.		
						g. Transit dependency.		
						h. Limited English speaking		
				B.		narize how many minority and/or low-income holds are impacted.		
				C.	Busine	ess, farm, and nonprofit organization impacts.		
					1.	Estimate of the number, types, and sizes of businesses, farms, and nonprofit organizations to be displaced. How many of these are minority owned or operated?		
					2.	The approximate number of employees for each business, farm, and nonprofit organization.		
IV.	Mitiga	ition						
Discuss relocation assistance. (Preparers should consult regional Real Estate Services personnel as early as possible for assistance in preparing relocation information.)								
SAT	INC	MIS	N/A					
				A.	Reside	ential.		
					1.	Describe available housing in the area and the ability to provide suitable relocation housing for residents being displaced, including moving existing structures to a new location.		
					2.	Describe any special advisory or other services that will be necessary for special relocation problems.		

SAT	INC	MIS	N/A										
					1	Include a statement of commitment to last resort housing when sufficient comparable replacement housing may not be available.							
				B.	Busines	s, farm, and nonprofit organizations.							
					1	Discuss probable availability of replacement facilities for business and nonprofit organizations, including moving existing structures to a new location.							
					2.	Discuss potential relocation of farm operations.							
				 C. Include a statement that the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and that relocation resources are available to all residential and business relocatees without discrimination. D. Describe specific measures or coordination discussed with 									
				D.									
				E.	Describe commits	e any additional mitigation measures and ments.							
V.	Const	ruction	Activi	ty Impa	acts								
Activi	ty Impa		tion of	the env	rironment	ne project are to be addressed in a "Construction al document. Provide the following information, as							
SAT	INC	MIS	N/A										
				A.	Impacts	Normally not applicable.							
				B.	Mitigation Normally not applicable.								

AT	INC	MIS	N/A		
				A.	Objectives of the project.
				B.	Current housing availability and vacancy rates.
				C.	Impacts of all alternatives including the no-build.
				D.	Recommend mitigation and reference to the Uniform Relocation Act.
				E.	Comparison of alternatives based on impacts and cost effectiveness of mitigation. Total relocations/displacements including number or percentage of minority/low-income households/businesses impacted. Separate into households impacted and businesses impacted.

458.01	Introduction
458.02	Applicable Statutes and Regulations
458.03	Policy Guidance
458.04	Interagency Agreements
458.05	Technical Guidance
458.06	Permits and Approvals
458.07	Non-Road Project Requirements
458.08	Exhibits

Key to Icon



Web site.*

458.01 Introduction

This chapter summarizes environmental justice requirements for WSDOT projects. See related information on social, economic, and relocation requirements in **Chapter 457**.

Transportation projects affect the environment and the quality of our lives. Lowincome and minority populations should receive an equitable distribution of the transportation benefits without suffering disproportionately high and adverse impacts.

On February 11, 1994, President Clinton signed Executive Order 12898 requiring federal agencies to administer and implement programs, policies, and activities that affect human health or the environment to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations.

Incorporation of environmental justice principles throughout the transportation planning and decision making processes is an implementation of the principles of NEPA, Title VI of the Civil Rights Act, the Uniform Relocation Act, <u>SAFETEA-LU</u>, and other DOT statutes, regulations, and guidance that affect social, economic, environmental, public health, and public involvement.

As described in **Chapter 410** and **Chapter 411**, the NEPA process includes identifying social and economic effects that are interrelated with natural or physical environmental effects, considering alternatives, coordinating with agencies, involving the public, and utilizing a systematic interdisciplinary approach.

Addressing the issues, coupled with full implementation of the Federal Aid Highway Act 23 USC 109(h) (e.g., community cohesion, availability of public facilities and services, adverse employment effects), will help to prevent discrimination and disproportionately high and adverse impacts.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(1) Summary of Requirements

Environmental justice is one of the factors considered when identifying environmental impacts. It needs to be addressed as any other environmental concern using identification, avoidance, minimization and finally mitigation. To correctly identify potential inequities, the environmental justice analysis may require more detailed studies of communities/populations affected by a transportation project in combination with effective, inclusive community outreach. Creative approaches may be needed to contact these populations, since traditional outreach methods are not always effective. Knowing the community will assist in creating appropriate, effective outreach.

The National Environmental Justice Advisory Council (NEJAC) suggestions for public involvement include:

- Encourage public participation in all aspects of environmental decision-making
- Encourage active community participation
- Institutionalize public participation
- Recognize community knowledge
- Utilize cross-cultural formats and exchanges

This process is intended to ensure that projects are developed in a manner that avoids and/or minimizes disproportionately high and adverse effects on minority and low-income populations.

FHWA's Community Impact Assessment, and Environmental Justice: What You Should Know (Washington State FHWA division) as well as other documents referenced in Section 458.05 supplement the requirements described in this chapter.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

EJ Environmental Justice

CIA Community Impact Assessment
CSS Context Sensitive Solutions

Title VI Title VI of the Civil Rights Act of 1964 and the Civil Rights

Restoration Act of 1987.

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Adverse Impacts – Determined by those individuals potentially impacted by the Action through demographic analysis and early public involvement. Adverse impacts, (as defined by USDOT) and as applied to environmental justice, "may include, but are not limited to: air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and service; vibration; adverse employment effects; displacement of persons, businesses,

farms, or nonprofit organization; increased traffic congestion; isolation, exclusion or separation of minority or low-income individuals from the broader community; and the denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities." Individuals potentially affected by the project should be identified through demographic analysis and targeted for early public involvement.

Community Impact Assessment (CIA) – A process to evaluate the effects of a transportation action on a community and its quality of life. The assessment process should include all items of importance to people, such as mobility, safety, employment effects, relocation, isolation and other community issues.

Context Sensitive Solutions (CSS) – A proposed transportation project is planned not only for its physical aspects as a facility serving specific transportation objectives, but also for its effects on the aesthetic, social, economic and environmental values, needs, constraints and opportunities in a larger community setting.

Disproportionately High and Adverse Impact – The adverse impact is disproportionately high if it is predominately borne by a minority and/or low-income population, or if the adverse impact that could be suffered by the minority or low-income community is more severe or greater in magnitude than the adverse impact that could be suffered by the non-minority or non-low-income community. Cultural differences need to be factored into this analysis.

Environmental Enhancement – Going beyond mitigation to use all practical measures to harmoniously fit any proposed highway project into the adjacent communities and natural environment it traverses (1990 FHWA Environmental Policy Statement).

Environmental Justice – The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means (1) that all persons share in the benefits of our investments; and (2) that no persons (including racial, ethnic, or low income groups) should bear a disproportionate share of the negative consequences resulting from the execution of Federal, State, and local programs and policies.

<u>Low-income</u> –Having an income level that is at or below the most current poverty guidelines established by the U.S. Department of Health & Human Services for that size of household.

Low-income Population – Any readily identifiable group of low-income persons who live in a geographic area, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed DOT program, policy, or activity.

Minority – A person who is:

- Black (a person having origins in any of the black racial groups of Africa).
- Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or the Spanish culture or origin, regardless of race).

- Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands).
- American Indian or Alaskan Native (a person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population – Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

458.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to environmental justice issues. See **Appendix D** for a list of statutes referenced in the EPM. See **Section 457.02** for other related statutes and regulations.

Statutes and regulations cited in this section can be accessed online from the FHWA/FTA environmental justice web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Justice.

Or by direct link:

http://www.fhwa.dot.gov/environment/ej2.htm

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section <u>4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that considerations such as environmental justice are given due weight in project decision-making.

The State Environmental Policy Act (SEPA), RCW 43.21C mandates a similar procedure for state and local actions, but has no specific requirement for environmental justice. However, transportation projects with only state funding need to comply with Title VI of the Civil Rights Act requirements <u>and Executive Order 13166 on Limited English Proficiency (LEP).</u>

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ).

State implementing regulations are in <u>WAC 197-11-448</u> and Chapter 468-12 WAC (WSDOT). For details on NEPA/SEPA procedures, see **Chapter 410** and **Chapter 411**.

(2) Civil Rights Acts

The FHWA views environmental justice as an extension of Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of <u>1987</u>. These nondiscrimination laws require that "federal-aid recipients, sub-recipients, and contractors prevent discrimination and ensure nondiscrimination in all of their programs and activities, whether these programs and activities are federally

funded or not." The factors for discrimination include race, color, national origin, and gender.

"The effort to prevent discrimination must address, but not be limited to a program's impacts, access, benefits, participation, treatment, services, contract opportunities, training opportunities, investigations of complaints, allocations of funds, right-of-way, research, planning and design."

WSDOT's Office of Equal Opportunity (OEO) is required to report annually to FHWA on Title VI compliance. OEO is responsible for implementing, monitoring and ensuring WSDOT's compliance with Title VI regulations. Other responsibilities are outlined in the WSDOT Title VI Plan (November 2001).

The Environmental Services Office is responsible for monitoring compliance with Title VI requirements in all aspects of the environmental process.

Lack of compliance with Title VI could potentially affect WSDOT's ability to receive federal transportation funding.

(3) Federal Aid Highway Act of 1970

Implementing regulations of this Act, 23 USC 109(h), established a further basis for equitable treatment of communities being affected by transportation projects. It requires consideration of the anticipated effects of proposed transportation projects upon residences, businesses, farms, accessibility of public facilities, tax base, and other community resources.

(4) Presidential Executive Order 12898 – Environmental Justice

The Presidential Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations (February 11, 1994) was intended "to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment."

It requires that each federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment so as to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations.

The order directs federal agencies to:

- Analyze the environmental effects, including human health, economic, and social effects, of federal actions, including the effects on minority and lowincome communities, when required by NEPA.
- Provide opportunities for community input during the NEPA process, including potential effects and mitigation measures.
- Ensure that the public, including minority and low-income communities, have adequate access to public information relating to human health or environmental planning, regulations, and enforcement. Since 1994, federal agencies have added the following goal:

 Protect minority and low-income populations who principally rely on fish and/or wildlife for subsistence from human health risk associated with the consumption of pollutant-bearing fish or wildlife.

The Executive Order is available online at FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Justice, then The Facts, then Legislation and Guidelines.

Or by direct link:

http://www.epa.gov/compliance/resources/policies/ej/exec_order_12898.pdf

(5) American with Disabilities Act and Age Discrimination Act

Along with minority and low-income populations, disabled individuals and the elderly should be identified in the action area. This can either be done as part of the social analysis or part of the environmental justice analysis since environmental justice technically applies only to low-income and minorities. Disabled individuals are protected under Section 504 of the Rehabilitation Act of 1973 and American with Disabilities Act (ADA). The elderly are protected by the Age Discrimination Act of 1975.

(6) President's Executive Order 13166 – Limited English Proficiency

The President's Executive Order 13166, on Improving Access to Services for Persons with Limited English Proficiency (August 11, 2000) was intended "to improve access to federally conducted and federally assisted programs and activities for persons who, as a result of national origin, are limited in their English proficiency (LEP)." This executive order is online at:

http://www.lep.gov/recip.html

(7) Tribal Government

Tribal considerations are also addressed under both Section 4(f) 49 U.S.C. 303 and Section 106 of National Historic Preservation Act 16 U.S.C. 470f. For further assistance contact WSDOT's tribal liaison at 360-705-7025 or:

http://www.fhwa.dot.gov/environment/archaeology/tribalissues.htm

(8) Governor's Executive Order 93-07

The Governor's Executive Order on Affirming Commitment to Diversity and Equity in the Service Delivery and in the Communities of the State (1993) directs "all executive agencies and institutions of higher education to initiate actions to integrate the principles of diversity into all facets of workplace community and in the delivery of services to the people of Washington."

458.03 Policy Guidance

(1) Environmental Justice

FHWA's longstanding policy has been to actively ensure nondiscrimination under Title VI of the 1964 Civil Rights Act in federally funded activities. Federal guidance on environmental justice can be found in numerous documents,

including U.S. Department of Transportation Order 5610.2 on Environmental Justice (February 3, 1997), and FHWA Order 6640.23 on FHWA Actions to Address Environmental Justice in Minority Populations & Low-Income Populations (December 2, 1998). These and other documents are available online at FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, Environment, then Environmental Justice, then The Facts, then Legislation and Guidelines. Also click on Environmental Guidebook, then Title VI and Environmental Justice.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v2ch16.htm

http://www.fhwa.dot.gov/environment/ej2.htm

WSDOT's Environmental Services Office (ESO) and Office of Equal Opportunity (OEO) work closely together on the implementation of Title VI and the Presidential Executive Order 12898 on Environmental Justice. Both offices provide assistance, guidance, technical knowledge and oversight on environmental and civil rights legislation and implementation to assure compliance within WSDOT's operation.

WSDOT's Environmental Services Office (ESO) annually gathers information related to Environmental Impact Statements (EISs) and Environmental Assessments (EAs) that have been reviewed for Title VI and EJ compliance and finalized for publication. WSDOT's Office of Equal Opportunity (OEO) includes this information in its Annual Title VI Update and Accomplishment Report to FHWA. To find out more about Title VI reporting, contact OEO at 360-705-7098.

(2) Limited English Proficiency

To implement Presidential Executive Order 13166, WSDOT and other agencies receiving assistance from the Federal government must take reasonable steps to ensure that persons with Limited English Proficiency (LEP) have meaningful access to the programs, services, and information those agencies provide. For U.S. Department of Justice policy guidance, and other information, please refer to the LEP web site:

http://www.lep.gov/recip.html

USDOT's LEP guidance can be accessed at:

http://www.usdoj.gov/crt/cor/lep/dotlep.htm

Project teams should be aware of this guidance and try to ensure that project information is available to those impacted by a project who have limited proficiency in English. This may mean printing fliers or fact sheets in other languages or having interpreters available at public meetings. Identification of these populations is usually made through census data, contacts with social service agencies and public involvement.

(3) Tribal Consultation

WSDOT's Secretary of Transportation, Douglas MacDonald, signed an Executive Order on February 19, 2003, directing WSDOT employees "to enter Tribal Consultation with tribes who have ancestral homelands within the state boundaries, including those having reservations located outside of the state, on all decisions that may affect tribal rights and interests."

As "appropriate issues are identified, WSDOT will begin the consultation process." Environmental justice could be one of the issues identified during the environmental process. The executive order is online at:

http://www.wsdot.wa.gov/NR/rdonlyres/847C3EC9-3373-41A7-ADBE-AC4D8E3F6ED6/0/ConsultationPolicy.pdf

(4) Local Government Policies

Local comprehensive plans may contain elements addressing social goals and may include an element on environmental justice. These plans should be reviewed during WSDOT's environmental review process.

458.04 Interagency Agreements

None.

458.05 Technical Guidance

WSDOT participates in many areas that overlap social and environmental justice. Some of these are context sensitive solutions/design, community impact assessment and managing project delivery. General information on these can be found in the Design, Highways and Local Programs, and Environmental Services offices.

The WSDOT Environmental Services Office and the WSDOT regional environmental offices assist with and review discipline reports on social, economic, and environmental justice.

Implementation and complaint resolution associated with Title VI or EO 12898 should be addressed through the WSDOT Office of Equal Opportunity. See the WSDOT Title VI plan.

http://www.wsdot.wa.gov/oeo/pdffiles/2001TitleVIPlan.pdf

(1) WSDOT Discipline Reports

The Discipline Report checklists on Social Elements (Exhibit 457-1), Economic (Exhibit 457-2), and Relocation (Exhibit 457-3) should provide enough information to determine if there are possible disproportionate impacts on an environmental justice population in the impact area. Other areas or disciplines such as noise, air quality, land use, and transportation that could affect a determination on environmental justice populations should also be examined.

An Environmental Justice analysis is necessary if demographic information indicates there is a minority and/or low income population in the project area that might be impacted. Environmental justice is often included as a separate section or summary in the social discipline report. However, if the analysis of effects to an EJ population is complex, a separate report may be more appropriate.

Exhibit 458-3 is a checklist that can be used to guide the EJ analysis whether or not a separate discipline report is prepared.

Whatever approach is taken, be sure enough information is provided for the reviewer to understand the affected environment, the potential effects of the project, and whether proposed avoidance and mitigation is adequate and appropriate. Even if a complete report is not prepared, checklist items should be addressed, either in a completed checklist, appendix, or technical note.

(2) Other WSDOT Guidance

(a) Environmental Justice Web site

Detailed information and resources on environmental justice including laws, regulations and guidance is online at WSDOT's Environmental Justice web site:

http://www.wsdot.wa.gov/environment/envJustice/default.htm

(b) Step by Step Guidance

For detailed guidance on preparing Environmental Justice analysis, see the Step-by Step Guide, Exhibit 458-1 and accompanying flowchart Exhibit 458-2. The checklist in Exhibit 458-3 is a guide to issues potentially applicable to environmental justice.

(c) GIS Assistance

Geographic Information System (GIS) information can be used to create demographic maps to help both the public and decision makers more effectively understand and discuss the potential impacts of the proposed project. The maps should be scaled views of the project area showing the location of potential impacts relative to minority or low-income residents. For WSDOT staff, the GIS Workbench is a helpful tool. For assistance contact the Environmental Services Office, 360-705-7491.

(3) FHWA/FTA Guidance

(a) FHWA/FTA Toolkit

The FHWA and Federal Transit Administration (FTA) have developed a toolkit of educational and training materials that will help transportation practitioners address environmental justice issues. These materials are designed for state DOTs, MPOs, local agencies, consultants, and interested community groups.

A web site containing facts, questions and answers, case studies, effective practices, and other environmental justice links and tools can be accessed from FHWA's home page:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Justice.

Or by direct link:

tttp://www.fhwa.dot.gov/environment/ej2.htm

In addition, the WA State FHWA division office has issued guidance for their staff on environmental justice. Contact (360) 534-9325 for a copy of "Environmental Justice: What You Should Know".

(b) FHWA Community Impact Assessment

FHWA's *Community Impact Assessment*, FHWA Publication No. FHWA-PD-96-036, covers topics related to environmental justice. The assessment includes guidelines on health risks and cumulative impacts.

FHWA is placing additional emphasis on earlier and continuing public involvement in the form of community impact assessment.

The publication is available online on the FHWA's web site at:



Click on FHWA Programs, then Environment, then Environmental Justice, then Resources.

Or by direct link:

http://www.fhwa.dot.gov/environment/cia.htm

(c) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (October 30, 1987), gives guidance on preparing discipline reports on social, economic, and relocation impacts. It should be noted that this Technical Advisory (TA) was developed prior to the Environmental Justice and Limited English Proficiency orders. Applicable Environmental Justice guidelines are to be used in conjunction with this Technical Advisory.

This guidance, summarized in **Section 457.05**, is available online at FHWA's home page:



Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(4) CEQ Guidance

Another useful reference is a document published by the Council on Environmental Quality (CEQ), *Environmental Justice – Guidance under the National Environmental Policy Act*. It should be noted that guidance for doing EJ analyses in this CEQ document differs in methodology from that of FHWA and WSDOT and should not be used. This is given as a reference only.

The document is available on the CEQ web site:



Click on NEPAnet on the White House home page, then CEQ Guidance, then name of document.

Or by direct link:

http://ceq.eh.doe.gov/nepa/regs/ej/justice.pdf

Permits and Approvals 458.06

None.

458.07 **Non-Road Project Requirements**

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

Exhibits 458.08

Exhibit 458-1 – Conducting an Environmental Justice Analysis – Step-by-Step Overview.

Exhibit 458-2 – Environmental Justice Analysis – Step-by-Step Flowchart.

Exhibit 458-3 – Environmental Justice Discipline Report Checklist.

Conducting an Environmental Justice Analysis – Step-by-Step Overview

Purpose and Requirements

WSDOT's guide, Conducting an Environmental Justice Analysis Step-by-Step (Step-by-Step), provides direction on how to analyze transportation planning and project development effects on minority and low-income communities. This condensed guide was developed in accordance with Title VI of the Civil Rights Act of 1964, National Environmental Policy Act, (NEPA), Intermodal Surface Transportation Efficiency Act (ISTEA) and the Presidential Executive Order 12898 of 1994 as applicable throughout all stages of project development and construction. This guide acts as a general framework for any environmental justice analysis.

WSDOT intends this guidance to:

- Provide a consistent approach to conducting an environmental justice analysis.
- Ensure transportation planning and project development are done in a manner that does not have the effect of excluding persons from participation in or receiving program benefits.
- Promote the exchange of lessons learned.
- The Step-by-Step is a general process to refine an environmental justice (EJ) analysis throughout project development through the planning, environmental, project development, construction, and maintenance process.

Environmental Justice Analysis Overview

The EJ analysis process is composed of four basic steps:

- 1. Conduct a demographic analysis of the Study Area.
- 2. Develop a Public Interaction/Involvement Plan (PIP).
- 3. Determine impact(s), appropriate mitigation, and benefit(s) with regard to EJ populations via public interaction with the potentially affected communities.
- 4. Document the EJ analysis process.

Step 1 – Demographics

Prior to the project kick off meeting, but after the project is defined, conduct a demographic analysis of the project area, map the results, and develop a PIP based on this analysis. The analysis must identify any environmental justice (EJ) populations, and should include other data elements relevant to the PIP – e.g., age, disability, limited English proficiency, income level.

An EJ community includes individual minority populations, i.e., Asians, Blacks, Hispanic, Native Americans and Pacific Islanders; and/or low-income populations as defined by Presidential Executive

Step 2 – PIP Development

Order 12898.

The PIP will be developed and modified to meet specific public and project needs as the project proceeds through the planning, environmental, project development, construction, and maintenance process.

The project team, assisted by this *Step-by-Step*, needs to decide how and where public interaction will occur in addition to circulating the usual reports for review and comment – as required or appropriate for project scoping; constraint identification; alternative development; and impact, mitigation, and benefit identification.

The PIP should:

- 1. Set public interaction goals and objectives.
- 2. Identify people and organizations to be reached based on demographics and relevant information.
- 3. Develop a strategy based on the goals/objectives and characteristics of the target audiences.
- 4. Incorporate strategies and techniques to aid decision-making.
- 5. Be evaluated and modified as more information is obtained from the impacted community.
- 6. Document the public interaction process and its results.

Step 3 – Impact/Mitigation/Benefits

When alternatives are developed, potential impacts, mitigation, and benefits should be identified and mapped prior to producing a draft document. Map the affected geographic areas, and refine the demographic analysis to determine if EJ communities are affected. A disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

- 1. Is predominately borne by a minority population and/or a low-income population; or
- 2. Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non low- income population.

Disproportionately high and adverse effects on minority populations or low-income populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not "practicable." To determine the practicability of a mitigation measure or an alternative, take into account the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects. This process should be documented.

The analysis also needs to ensure that any potential for disproportionately high and adverse effects on populations protected by Title VI and EJ ("protected populations") will only be carried out if:

- 1. A substantial need for the program, policy or activity exists, based on the overall public interest; and
- 2. Alternatives that would have less adverse effects on protected populations have either:
 - a) Adverse social, economic, environmental, or human health impacts that are more severe; or
 - b) Would involve increased costs of an extraordinary magnitude.

A PIP is implemented within these affected EJ communities to obtain feedback on the alternatives, impacts, mitigation and benefits. A correlation should be made between the results of the public interaction, particularly with an adversely impacted EJ community, and the proposed mitigation and benefits.

STEP 4 – Document the Process

The EJ analysis process is documented as follows:

- Summarize related laws, regulations and guidance,
- Define "adverse" and "disproportionate" impacts (per USDOT order.)
- Document data sources and methods for determination.
- Describe the study area and its demographics using narrative and maps,
- Summarize public interaction strategy,
- Describe and map impacts, mitigation and benefits and those populations affected,
- Describe specific interactions with the affected communities and results,
- Make an EJ determination(s),

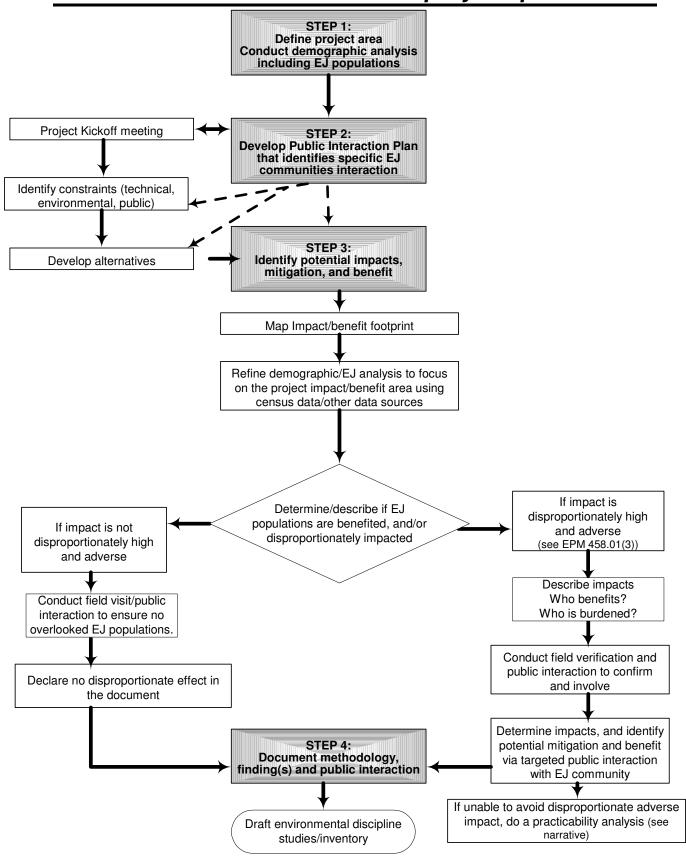
- If the determination result is high and disproportionately adverse, another determination should be made taking into consideration the effect that mitigation and benefits will have.
- If disproportionately high and adverse effects on minority populations or low-income populations cannot be avoided, minimized or mitigated, a practicability determination should be made.

Draft the environmental discipline studies/inventories, and produce a draft environmental/planning document. The EJ determination is done concurrently with preparation of other environmental documents to allow for the inclusion of any related impacts such as noise, air, etc.

Contacts for more Information

WSDOT Environmental Justice Coordinator HQ Environmental Services Office 360-705-7304 WSDOT Title VI Coordinator HQ Office of Equal Opportunity 360-705-7098

Environmental Justice Analysis – Step-by-Step Flowchart





Discipline Report Checklist Environmental Justice

Project N	Vame:					Job Number:
Contact I	Name	:				
Date Rec	ceived	l:			_ Date Reviewed:	Reviewer:
A gu of H	inswe uidan f proj lowev	rs are rece. Dis ect. Recer, all u	equired scipline viewer users sh	for que report v s should	l use the checklist adjusting is aware of requirements that a	The following checklist is according to complexity and type
I. S	tudie	s and	Coordi	nation		
Exhibit 4 Title VI	157-2,	and Ex	xhibit 4	57-3. A	al Elements and Exhibit 457- Also refer to 42 USC 2000d-o 964, and Presidential Execut	
II. Ir	ntrod	uction				
identified analysis, is helpful	d low but a l to in	income re to be aclude r	e and/or e used in naps hi	minori n conju ghlighti	nction with the overall Socia	demographic analysis has ea. These are specific to an EJ al-Economic-Relocation analysis. It es overlaid with any minority and/or
SAT I	NC	MIS	N/A			
				A.		which are the subject of EJ-income and minority populations usus blocks, block groups, or
				B.		pproach: enhanced public treach to EJ populations), and e of disproportionate impact.

III.	Affect	ed Pop	ulation	ıs	
SAT	INC	MIS	N/A	Defini	tion of area of potential impact
				A.	Documentation of data sources and methods for determination. Census data alone is generally not adequate. Data from public involvement, local comprehensive plans and "windshield surveys" are some examples of where supplemental data can be obtained.
				В.	Document the presence of low income or minority populations. (Identification, description, and location of EJ population.)
IV.	Enhar	nced Pu	ıblic In	volvem	ent
SAT	INC	MIS	N/A		
				A.	Describe special efforts to address literacy, language, transportation, schedule, childcare, other barriers to involvement.
				B.	Description of targeted outreach efforts to involve low income/minority population. Describe methods used to overcome potential barriers.
				C.	Documentation of strategy and results (attendance, responses, etc.).
٧.	Asses	sment	of Imp	acts	
SAT	INC	MIS	N/A		
				A.	Definitions of adverse and disproportionate impacts (as per USDOT order.).
				В.	Analysis of impacts of each alternative, including No-Build, on EJ population. (Types of impacts as listed in Social-Economic-Relocation checklists)
				C.	Documentation of community perception of impacts, positive and negative and severity.
				D.	Description of any disproportionately high and adverse impacts on low income or minority population.
				E.	Description of any offsetting benefits should be described.
				F.	Conclusion of impacts on EJ population. Are adverse impacts appreciably more severe or greater in magnitude than the adverse impacts that will be suffered by the non-minority/low-income population?

VI. Avoidance, Minimization, Mitigation and Enhancement **SAT INC MIS** N/A Discussion of any alternatives that avoid such impacts as they П A. П pertain to the EJ population. Include discussion of practicability. Description of efforts to avoid, minimize, mitigate, enhance, В. or offset project impacts as they pertain to the EJ population. C. Description of social, economic, and environmental effects of mitigation measures as they pertain to the EJ population. D. Mitigation commitments. П E. Documentation of community perception of suitability of mitigation proposed. VII. Summary

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the final environmental document with only minor modification.

The summary should include:

SAT INC MIS N/A

	A. B. C.	The objectives of the project. Environmental Justice populations and issues involved. Impacts of all alternatives including the no-build alternative.
	_	
	D.	Recommended mitigation.
	E.	Comparison of alternatives based on impacts and reasonableness of mitigation.
	F.	Summarize practicability determination if disproportionately high and adverse effects on minority populations or low-income populations cannot be avoided, minimized or mitigated. (See Step by Step 458.1)

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Key to Icon



Web site.*

459.01 Introduction

Visual perception is an important component of environmental quality that can be affected by transportation projects. The location, design, and maintenance of highway, ferry, rail, and aviation facilities may adversely or positively affect visual features of the landscape. Concern over adverse visual impacts can be a major source of project opposition. This chapter focuses on highway projects, but the same, or similar, requirements apply to other transportation modes and facilities (see Section 459.07). For related information on historic and cultural resources, see Chapter 456.

Because of the public nature and visual importance of transportation projects, both negative and positive visual impacts must be adequately assessed and considered during project development. The goal of the project is to fit the facility into the surrounding landscape in harmony with the visual resource. The project should minimize the impact and enhance the visual environment.

In discussing and reviewing the visual impacts of a highway project, two views must be considered: the view from the road and the view toward the road. Americans have repeatedly ranked pleasure driving on scenic roads as one of their favorite pastimes. Researchers have also shown that the view from the road is the basis for much of what people know about the everyday environment and their mental image of the landscape. A positive visual experience by motorists can also contribute to traffic calming.

Projects must be carefully planned to ensure that the facility blends into the community and its environment. Pleasing vistas for travelers should not be developed at the expense of views from surrounding areas.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(1) Summary of Requirements

A Visual Impacts Analysis must be completed for all projects that change the roadside character, including changes in road alignment, expansion of the roadway, new intersections <u>or ferry terminal improvements</u>, increased lighting, or removal of considerable vegetation.

During project development, visual impacts, including aesthetics, light, glare, and night sky impacts, should be considered for all project alternatives by evaluating views from the road and views toward the road that will be in existence during the construction phase and the operational phase. The Visual Impacts Discipline Report is developed from a detailed analysis of the project area, including a photographic log of the affected viewshed. The report must include a qualitative and quantitative analysis of all significant views from and toward the facility throughout the project length. The number of views needed depends upon the geographic extent of the project, its setting in the landscape, the effects on the identified viewer groups, and their sensitivity to changes in the view. Mitigation measures and opportunities must be outlined through design using Federal Highway Administration (FHWA) criteria.

Project alternatives will need to be sufficiently developed for a complete analysis to occur. The person doing the Visual Impacts Analysis must have an understanding of the changes that each alternative will have on the visual environment. Large cuts or fills, walls, bridges, and horizontal and vertical alignments must be described and analyzed.

The findings and recommendations in the Visual Impacts Discipline Report are used in a Documented Categorical Exclusion (DCE), Environmental Assessment (EA), or Environmental Impact Statement (EIS).

An abbreviated Visual Impacts Analysis is to be completed by a disciplinary expert for the Environmental Review Summary and SEPA checklist. This process will evaluate the potential for impacts to the visual resource without an in-depth analysis. Typically, mitigating measures that would avoid or minimize impacts to the visual resource are outlined in these documents.

All Visual Impacts Analysis discipline reports should be written by, or coordinated through, the region Landscape Architect or the Headquarters Roadside and Site Development Unit for regions without a Landscape Architect.

(2) Abbreviations and Acronyms

None specific to visual impacts. See **Appendix A** for a general list of abbreviations and used acronyms in the EPM.

(3) Glossary

See Appendix B for a general glossary of terms used in the EPM.

Community Enhancement Areas – Features such as community gateways, roadside parks, viewpoints, agricultural uses, and historic markers.

Corridor – Road and highway right-of-way and the adjacent area that is visible from and extending along the highway. The distance the corridor extends from the highway could vary with different intrinsic qualities.

Intrinsic quality – Scenic, historic, recreational, cultural, archaeological, or natural features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area

Landscape Unit – An area or volume of distinct landscape character that forms a spatially enclosed unit at ground level, differentiated from other areas by its slope and its pattern of land cover. A unique segment of the landscape.

Scenic Byway – Public road having special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized as such through legislation or some other official declaration for its scenic, historic, recreational, cultural, archaeological, or natural qualities.

<u>Scenic Corridor Management Plan</u> – Written document that specifies the actions, procedures, controls, operational practices, and administrative strategies needed to maintain the scenic, historic, recreational, cultural, archaeological, and natural qualities of a scenic byway.

Viewshed - All the surface areas visible from an observer's viewpoint.

Viewer Group – Classes of viewers differentiated by their visual response to the facility and its setting. Response is affected by viewer activity, awareness, and values.

Viewer Sensitivity – The viewer's variable receptivity to the elements within the environment they are viewing. Sensitivity is affected by viewer activity and awareness.

Visual Element – A particular feature of the visual environment.

Visual Function – The component of a transportation project that is designed and experienced primarily from a visual perspective; includes positive guidance and navigation, distraction screening, corridor continuity, roadway and adjacent property buffering, and scenic view preservation.

Visual Quality – Character of the landscape, which generally gives visual value to a setting.

459.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to visual impacts. See **Appendix D** for a list of statutes referenced in the EPM.

(1) Federal

The Federal statutes on visual impacts are codified under several programs, described below. For general information on highway-related legislation, see FHWA's web site:

http://www.fhwa.dot.gov/legsregs/legislat.html

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to aesthetics and visual quality are

given due weight in decision-making. NEPA Section 101(b)(2) states that it is the "continuous responsibility" of the federal government to "use all practicable means" to "assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings." For details on NEPA procedures, see Chapter 410 and Chapter 411.

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). According to the CEQ implementing regulations, environmental analysis is to consider impacts on urban quality, historic and cultural resources, and the design of the built environment" (Section 1502.6). Agencies shall "identify methods and procedures . . . to insure that presently unquantified environmental amenities and values may be given appropriate consideration" (Section 1507.2).

(b) Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

SAFETEA-LU (2005) authorizes the Federal surface transportation programs for highways, highway safety, and transit for the <u>five-year</u> period from 2005 to 2009. Eligible activities include: acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, landscaping and other scenic beautification, historic preservation, preservation of abandoned railway corridors (including the conversion and use for pedestrian or bicycle trails), control and removal of outdoor advertising.

To implement the Scenic Byways Program created under 23 U.S.C. 101(g)-133 (e), FHWA has set criteria for designating scenic byways, based upon their scenic, historic, recreational, cultural, archaeological, and/or natural intrinsic qualities. For details, see:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Scenic Byways.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v2ch14.htm

(c) Highway Beautification Act

The Highway Beautification Act of 1965 (23 CFR-750) was enacted to provide effective control of outdoor advertising and junkyards, protect public investment, promote the safety and recreational value of public travel and preserve natural beauty, and provide landscapes and roadside development reasonably necessary to accommodate the traveling public. Implementing procedures are set forth in 23 CFR 750, 751, and 752.

(d) Historic Preservation Act

Implementing regulations for Section 106 of the Historic Preservation Act of 1966 (see Section 456.02), adopted in 1976, define criteria of adverse effect (Section 800.8) to include the "introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting."

(e) DOT Act, Section 4(f)

This act declares a national policy to make a special effort to preserve the natural beauty of the countryside and public park and recreation sites, wildlife and waterfowl refuges, and historic sites." (See **Chapter 455** and **Section 411.09** for details on Section 4(f).)

(f) Wild and Scenic Rivers Act

This act, as amended, directs that "each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included, without, insofar as it is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration, primary emphasis shall be given to protecting its esthetic, scenic, historic, archaeologic, and scientific features." (See Chapter 453 for information on wild and scenic rivers in Washington.)

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to aesthetics and visual quality are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Highway Beautification Act

Washington's Highway Beautification Act (RCW 47.40.010) adopted in 1961, declared improvement and beautification of any state highway right-of-way to be a "proper highway purpose." The act specifically mentions the following improvements: "planting and cultivating of any shrubs, trees, hedges or other domestic or native ornamental growth; the improvement of roadside facilities and view points; and the correction of unsightly conditions."

(c) Open Space Land Preservation

In RCW 84.34, the legislature declared that "it is in the best interest of the state to maintain, preserve, conserve and otherwise continue in existence adequate open space lands for the production of food, fiber and forest crops, and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens." Open space was defined as including any land area that would preserve visual quality along highway, road, and street corridors or scenic vistas. One of the criteria to be used in determining open space classification for current use or conservation futures is whether granting this classification would preserve visual quality along highway, road, and street corridors or scenic vistas (RCW 84.34.037).

459.03 Policy Guidance

(1) Transportation Commission

The Transportation Commission's Policy Catalog contains a specific policy on visual quality. Policy 6.3.6 is to "protect and enhance the visual quality of Washington's transportation corridors and facilities" and "identify outstanding vistas visible from transportation corridors, then protect, restore, and enhance them."

(2) Other WSDOT Guidance

Further policy and standards guidance related to aesthetics and visual quality is available in three WSDOT publications: the *Roadside Manual* (M 25-30), particularly Section 500, Visual Functions; the *Roadside Classification Plan*, which provides a framework for roadside management; and a WSDOT Design Manual companion document entitled *Understanding Flexibility in Transportation Design*. The first two documents are available online at:

http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library and find titles of manuals.

Or by direct link:

http://www.wsdot.wa.gov/fasc/engineeringpublications/Manuals/RoadsideManual.pdf

Understanding Flexibility in Transportation Design is available online at:

http://www.wsdot.wa.gov/eesc/design/Urban/Default.htm

459.04 Interagency Agreements

None. See **Appendix E** for a complete index to interagency agreements referenced in the EPM.

459.05 Technical Assistance

(1) WSDOT Discipline Report Checklist

A Visual Impacts Discipline Report is needed for an EIS project when the Project Manager, in consultation with any federal lead agencies, conclude (based on discipline expert advice and a preliminary Visual Impacts Analysis) that there is a reasonable probability that the project would have more than a moderate visual impact in the project area; for example if it would substantially alter the visual quality along a Scenic Byway, despite any proposed mitigation. For an EA project, a Visual Impacts Discipline Report is needed when it is determined that the project may have more than a moderate visual impact, but further analysis is needed to establish whether there is a reasonable probability that such an effect will occur.

WSDOT's checklist for preparing Visual Impacts Discipline Reports is in **Exhibit 459-1**. The checklist identifies the criteria to be used and guidelines for describing the affected environment and impacts from the perspective of the

views from the road and the view of the road under different alternatives. The report includes mitigation measures and a discussion of impacts during construction. **Exhibit 459-1** includes a rating scale for assessing visual quality and a matrix for comparing existing and future views under different alternatives. For the most current version of the checklist, see:

http://www.wsdot.wa.gov/

Click on Search, then Site Index, then R, then Roadside and Site Development, then Visual Impact Assessment for Highway Projects Discipline Report Environmental Checklist.

Or by direct link:

http://www.wsdot.wa.gov/eesc/design/roadside/default.htm

(2) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Current data sets relevant to visual quality include roadside landscape classifications and the Columbia River Gorge National Scenic Area. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(3) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives brief guidelines for preparing environmental documents, including sections on visual impacts. When there is a potential for visual impacts, the draft EIS should identify the impacts to the existing visual resource, the relationship of the impacts to potential viewers of and from the project, as well as measures to avoid, minimize, or reduce the adverse impacts. The draft EIS should explain the consideration given to design quality, art, and architecture in project planning. These values may be particularly important for facilities located in visually sensitive urban or rural settings. When a proposed project will include features associated with design quality, art or architecture, the draft EIS should be circulated to officially designated State and local arts councils and, as appropriate, other organizations with an interest in design, art, and architecture. The final EIS should identify any proposed mitigation for the preferred alternative.

The Technical Advisory is online via FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(4) FHWA Visual Impact Assessment Guidance

FHWA has developed a methodology for assessing the visual impacts of road projects for NEPA and Section 4(f) evaluations. An FHWA field guide, *Visual Impact Assessment for Highways* (DOT FHWA-HI-88-054), developed with assistance from WSDOT and other state transportation agencies, gives detailed guidance on scoping, performing, and documenting the visual impact assessment. It also includes background on legal requirements, a scoping questionnaire for visual assessments, and guidance on graphic techniques for displaying the visual effects of highways. Available online at:

http://www.wsdot.wa.gov/eesc/design/roadside/pdf/fhwavia.pdf

Another document, *Environmental Impact Statement: Visual Impact Discussion*, describes how an EIS should review the findings of a visual impact assessment; describe the landscape and visual character of the affected environment; and describe the environmental consequences, including visually sensitive locations for each alternative, the visual character of the proposed project, visual effects, and mitigation.

An FHWA memorandum (August 18, 1986) provides additional guidance on aesthetics and visual quality. The latter two documents are available in the Environmental Guidebook on FHWA's web site:



Click on FHWA Programs, then Environment, then Environmental Guidebook, then Built and Social Environment, then Aesthetics.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/v2ch1.htm

(5) Other FHWA Guidance

FHWA's supplementary guidance and procedures for EIS processing, in an Appendix to FHPM 7-7-2 (1981) states that the visual impact assessment should include an assessment of the temporary and permanent visual impacts of the proposed action. "Where relevant, the EIS should document the consideration given to design quality, art and architecture in the project planning. These values may be important for facilities located in sensitive urban settings."

DOT Notice 5610.1C, Attachment 2, Guidance on Format and Content of Environmental Documents, includes the following statement: "This notice supplements a Secretarial decision of 7-31-77, as recommended by the DOT Task Force on Design, Art and Architecture in Transportation, that, where relevant, the Department will require consideration of design quality to be reflected in environmental impact statements (EISs). This notice is to provide

further impetus to a constructive blending of esthetics and function... Design quality considerations are relevant and are to be documented in EISs where such facilities as ... major urban highways are in sensitive locations (such as parks or historic districts), or where public use areas are involved. These examples are not all-inclusive."

In addition, many other documents related to visual quality are available in the Environmental Guidebook on FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Index, then Aesthetics, Corridor Preservation, Scenic Byways, or Transportation Enhancements.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/index.htm

459.06 Permits and Approvals

None required.

459.07 Non-Road Project Requirements

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

Environmental documentation for ferry projects must address aesthetics and visual issues as part of the SSDP, including specific details about height of structures, use, and potential impacts.

459.08 Exhibits

Exhibit 459-1 – Visual Impacts Discipline Report Checklist.



Discipline Report Checklist Visual Impacts

Projec	t Name	:			Job Number:						
Contac	ct Name	e:									
Contact Name: Date Received: Date Reviewed: Reviewer:		Date Reviewed: Reviewer:									
Contact Name: Date Received: Date Reviewed: Reviewer:											
Answe	ers are r	equired	for que	estions	which have no N/A box.						
I.	Study	/ Metho	odolog	у							
SAT	INC	MIS	N/A								
				A.							
				B.	Methodology is repeatable.						
				C.	Methodology prevents bias.						
				D.	Methodology is understandable with minimal training.						
II.	Crite	ria Use	d								
SAT	INC	MIS	N/A								
				A.	Vividness- the memorability of landscape components.						
				B.	_						
				C.	Unity- the compositional harmony of the viewshed.						
				D.	Viewer position noted (inferior, normal, superior).						
				E.	Viewer groups identified.						
				F.	Viewer exposure identified.						
				G.	Viewer sensitivity identified.						
				H.	Frequency of viewer exposure identified.						
				I.	Duration of view identified.						
				J.	Numbers of viewers identified.						

III.	Affec	ted En	vironn	nent	
SAT	INC	MIS	N/A		
				A.	Landscape units identified within project limits.
				B.	Visual impacts discussed for each alternative.
IV.	Views				
	V ICW				
SAT	INC	MIS	N/A		
				A.	Representative viewpoints established in each landscape unit.
				B.	Views toward the project analyzed.
				C.	Views from the project analyzed.
				D.	Existing views analyzed.
				E.	Proposed views analyzed.
				F.	Light and glare effects analyzed.
				G.	Quantitative analysis performed on all viewpoints.
				H.	Quantitative impacts analysis matrix included in report.
					Distance zones discussed:
				I.	Foreground
				J.	Middle ground
				K.	Background
					View elements discussed:
				L.	Landform
				M.	Water
				N.	Vegetation
				O.	Human-made development

٧.	Narra	tive			
SAT	INC	MIS	N/A		
				A.	Does the narrative correspond to the qualitative analysis?
				B.	Narrative discusses impacts.
				C.	Narrative discusses mitigation.
				D.	Construction activity impacts discussed.
VI.	Mitig	ation			
SAT	INC	MIS	N/A		
				A.	Mitigation for impacts discussed.
				B.	Solutions presented are achievable.
				C.	Solutions presented are solid and binding.

Visual Impacts Assessment

Visual Quality Criteria Rating Scale

	Vividness		
	Landform		
	Waterform		
	Vegetative		Intactness
	Human-made		Human Environment
7	Very High	7	None
6	High	6	Little
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	3	Moderately High
2	Low	2	High
1	Very Low	1	Very High
	Unity		Intactness Encroachment
7	Very High	7	None
6	High	6	Few
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	3	Several
2	Low	2	Many
1	Very Low	1	Very Many

Visual Impacts Analysis	s Matrix										
		Existing				Proposed					
Viewpoint	1	2	3	4	5	1	2	3	4	5	
View Orientation											
View Distance	Foreground										
	Middle ground										
	Background										
Viewer Position	Inferior										
	Level										
	Superior										
Vividness	Landform										
	Waterform										
	Vegetative										
	Human-made										
	Average										
Intactness	Development										
	Encroachment										
	Average										
Unity	Overall										
Total Visual Quality	<u> </u>										

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460.01 Introduction

This chapter addresses potential impacts of WSDOT projects on transportation. As defined by SEPA, this element of the built environment includes the movement or circulation of people and goods, specifically transportation systems; vehicular traffic, traffic hazards, and parking; and waterborne, rail, and air traffic. In addition, FHWA guidance highlights bicycle and pedestrian travel considerations.

Presumably WSDOT projects are designed to improve transportation systems, including multiple modes of travel, so transportation impacts are typically not significant. However, they need to be considered, and if necessary mitigated, especially construction impacts.

Highway projects can affect transportation in many ways, including conflicts between local traffic and added regional or sub-regional traffic at new or revised access points, increased SOV and HOV volumes, increased safety hazards for bicycles and pedestrians, and increased congestion or interrupted access during construction. This chapter primarily deals with the impacts of highway projects. Ferry, rail, and aviation projects could have similar impacts, such as traffic congestion and safety hazards, especially during construction.

(1) Summary of Requirements

SEPA requires consideration of project impacts on transportation as part of the built environment. FHWA policy and guidance includes accommodating bicycles and pedestrians. If parking will be impacted, local jurisdictions' offstreet parking regulations may apply. Specific requirements apply to projects affecting ferry facilities, railroads, or airports. See Section 457.05 and Section 458.05 for guidance on related socio-economic or environmental justice impacts.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

ADA Americans with Disabilities Act

EPF Essential Public Facility

FAA Federal Aviation Administration

GMA Growth Management Act
HOV High Occupancy Vehicle
RPZ Runway Protection Zone
SOV Single Occupancy Vehicle
USDOJ U.S. Department of Justice

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Essential Public Facility – Defined in RCW 36.70A.200 to include airports, state or regional transportation facilities as defined in RCW 47.06.140, including improvements to facilities and services of statewide significance identified in the statewide multi-modal plan, and other public facilities that are difficult to site.

Transportation Facilities of Statewide Significance – Defined in RCW 47.06.140 to include the interstate highway system, interregional state principal arterials including ferry connections that serve statewide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions as defined in RCW 81.104.015.

460.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to transportation issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 460.06**.

(1) <u>Federal</u>

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC 4321 et seq., requires that all <u>major</u> actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations <u>such as impacts on transportation</u> are given due weight in decision-making.

Federal implementing regulations are at 40 CFR 1500-1508 (CEQ) and 23 CFR 771 (FHWA). In addition, 23 CFR 652 specifically requires that federally aided projects include an analysis of any impacts on bicycle and pedestrian traffic. For details on NEPA procedures, see EPM Chapter 410 and Chapter 411.

(b) River and Harbors Act

Under Section 10 of the Rivers and Harbors Act of 1899 (33 USC Section 403) and implementing regulations, U.S. Army Corps of Engineers approval is required prior to any construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work which would affect the course, location, condition or capacity of such waters. The purpose of the act is to prevent obstruction to navigation. The law is online at:

http://www4.law.cornell.edu/uscode/ Click on Title 33, then Chapter 28

Or by direct link:



http://www4.law.cornell.edu/uscode/33/ch26.html

(c) General Bridge Act

Under the General Bridge Act of 1946 (33 USC Section 525, formerly Section 9 of the Rivers and Harbors Act) and implementing regulations, U.S. Coast Guard approval is required to construct a new bridge or reconstruct or modify an existing bridge over navigable waters of the United States. The purpose of the act is to preserve the public right of navigation and prevent interference with interstate and foreign commerce. Regulations (33 CFR Parts 114-115) are online at:

http://cfr.law.cornell.edu/cfr/ Click on Title 33, Section 414

Or by direct link:



http://cfr.law.cornell.edu/cfr/cfr.php?title=33&type=part&value=114

(d) Americans with Disabilities Act

The Americans with Disabilities Act (ADA), Public Law 101-336, enacted July 26, 1990, prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, state and local government services, public accommodations, commercial facilities, and transportation. The ADA requires public transit agencies to provide any person with disabilities living within ¾ of a mile of a bus route a ride from their home to the bus stop. It also mandates the establishment of TDD/telephone relay services.

Public transportation services are not covered by regulations for Title II, subtitle A, which prohibits discrimination on the basis of disability in all services, programs, and activities provided to the public by state and local governments (Federal Register, July 26, 1991).

Regulations for Title III, CFR, July 1, 1994, which prohibits discrimination on the basis of disability in public places, includes standards for accessible design, including minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility (Appendix A to Part 36).

The text of the statute and implementing regulations are accessible via the U.S. Department of Justice (USDOJ) web site:



http://www.usdoj.gov/

Click on Disabilities, then Publications.

Or by direct link:



http://www.ada.gov/publicat.htm

(e) FHWA Regulations

FHWA regulations covering federally aided projects include the following policy (in 23 CFR 652) on accommodation of bicycles and pedestrians: "The safe accommodation of pedestrians and bicyclists should be given full consideration during the development of Federal-aid highway projects, and during the construction of such projects. The special needs of the elderly and the handicapped shall be considered in all Federal-aid projects that include pedestrian facilities. Where current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort shall be made to minimize the detrimental effects on all highway users who share the facility. On highways without full control of access where a bridge deck is being replaced or rehabilitated, and where bicycles are permitted to operate at each end, the bridge shall be reconstructed so that bicycles can be safely accommodated when it can be done at a reasonable cost. Consultation with local groups of organized bicyclists is to be encouraged in the development of bicycle projects."

See 23 CFR 652.11 for planning considerations and 23 CFR 652.13 for design and construction criteria. The rules are online via FHWA's web site:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then 23 CFR, then 652, then 652.11 and 652.13.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0652.htm

(f) FAA Regulations

FAA Regulations, Part 77 (January 1975), include guidance relevant to design of road projects affecting navigable airspace. See Section 520.13 and WSDOT *Design Manual* (M-22-01), Figure 240-2, for public notice requirements.

(2) State

(a) State Environmental Policy Act (SEPA)

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on transportation are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT), and WAC 197-11-444 lists transportation as an element of the

built environment that includes transportation systems, vehicular traffic, waterborne, rail, and air traffic, parking, movement/circulation of people or goods, and traffic hazards.. For details on SEPA procedures and other state statutes addressing these aspects of the transportation element, see Chapter 410 and Chapter 411 and the following, respectively:

(b) Transportation Systems

Public Transportation – In 2005, the Washington State Legislature passed Substitute House Bill 2124, which increased the state role in public transportation. The law calls on the state to maximize opportunities to improve efficiencies in transportation corridors through public transportation. Specifically, the law requires the state to include transit and transportation demand management strategies in route development, and corridor, plan standards, and budget proposals.

(c) Vehicular Traffic

Essential Public Facilities – Under the Growth Management Act (GMA) (Chapter 36.70A RCW), a thorough public review is required prior to siting Essential Public Facilities (EPFs), such as state or regional transportation facilities. No local comprehensive plan or development regulation may preclude the siting of essential public facilities, but they can impose conditions on the project.

Transportation Facilities of Statewide Significance – RCW 47.06.140 requires WSDOT to plan for improvements to transportation facilities and services of statewide significance in the statewide multimodal plan, in cooperation with regional transportation planning organizations, counties, cities, transit agencies, public ports, private railroad operators, and private transportation providers.

City Streets as Part of State Highways – RCW 47.24 identifies design and environmental considerations for city streets that cross or are considered part of a state highway.

Design Standards – WAC 468-18-040 regulates design standards for rearranged county roads, frontage roads, access roads, intersections, ramps and crossings, including realignments as part of a road project.

(d) Bicycle/Pedestrian Traffic

RCW 47.30 requires WSDOT and local agencies to spend transportation funding on paths and trails.

(e) Aviation

General Aviation Airports - Siting of Incompatible Uses -

RCW 36.70.547 indicates that counties, cities, and towns shall (through their comprehensive plan and development regulations) discourage the siting of incompatible uses adjacent to general aviation airports.

(f) Rail

WDNR Easements – RCW 47.12.026 grants WSDOT authority to obtain an easement at no charge for waters in Washington State Department of Natural Resources (WDNR) jurisdiction that are required to relocate the

operating tracks of any railroad that will be displaced by the acquisition of such railroad property for state highway purposes.

(3) Local

If a project provides parking, the local jurisdiction's zoning, road standards, offstreet parking regulations, and essential public facilities (EPF) standards will apply. If a parking facility is being removed or replaced as a result of the road project, the local regulations also must be considered. Early coordination with local jurisdictions on any parking area that will need to be replaced or reconstructed is recommended.

460.03 Policy Guidance

(1) Washington Transportation Commission

Chapter 4 of the Transportation Commission's Policy Catalog contains a specific policy objective, and several policy principles, service objectives, and policies on special topics, all aimed at providing viable mobility choices. The policy principles indicate an intent to (among other things) "provide citizens with mobility choices which include at a minimum some forms of public transportation", "Promote modal connections to provide seamless travel to the customer", and "Support limited strategic expansion [of the transportation system] to accommodate growth and reduce congestion when possible." The 15 service objectives include ones to:

- Improve mobility within congested highway corridors; and
- Improve and develop urban transportation services, facilities, and programs
 to respond to growth, and to meet local and regional economic
 development, congestion, energy, and clean air objectives.

The policies on special topics relating to mobility choices include (among others) policies on urban mobility, non-motorized transportation, HOV programs and facilities, telecommunications/transportation linkages, intermodalism, ferry system parking, and public transportation, which may be relevant to transportation impacts.

(2) Federal Policies – Bicycles and Pedestrians

The USDOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure was drafted in response to Section 1202(b) of the Transportation Equity Act for the 21st Century (TEA-21):

- Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:
 - Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right-ofway or within the same transportation corridor.
 - The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively

- disproportionate is defined as exceeding 20 per cent of the cost of the larger transportation project.
- Where sparsity of population and other factors indicate an absence of need.
- 2. In rural areas, paved shoulders should be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day.

460.04 Interagency Agreements

None. See **Appendix E** for a complete index of interagency agreements referenced in the EPM.

460.05 Technical Guidance

(1) WSDOT Guidance

WSDOT has no Discipline Report checklist for analyzing transportation impacts; however, bicycle and pedestrian facility impacts are covered in the Social Elements Discipline Report (see checklist, **Exhibit 457-1**), and traffic impacts are included in the Economic Elements Discipline Report (see checklist, **Exhibit 457-2**). General guidance for various types of transportation impacts is provided in this section.

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT use only that has numerous layers of environmental or natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets relevant to vehicle traffic include state highways by WSDOT region, public park-and-ride lots, rest areas, ferry routes, railroads, and abandoned railroads. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:



Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(2) Transportation Systems

The impacts of WSDOT construction projects on other transportation systems, such as but not limited to public transit operations, need to be addressed for both the construction period and long-term operations. In 2005, the Washington State Legislature adopted SHB 2124 increasing the state role in public transportation specifically to increase efficiency of the roadways and highways through public transportation. The law requires route development plans and corridor plans and corresponding budgets to maximize efficiencies through improved integration of

public transportation and transportation demand management strategies. RCW 47.05.035 requires that the department use transportation demand modeling tools to evaluate investments based on the best mode or improvement, or mix of modes and improvements, to meet current and future long-term demand.

Project managers are advised to use transportation demand modeling to determine any changes in demand that would affect the other transportation systems and to, in conjunction with the other transportation system providers, determine the best approach to mitigate any adverse impacts. In addition, the changes in operations of any transportation systems should be modeled in a simulation tool using the changes in travel demand to determine any detrimental impacts of the operations and how those operations can be improved for the benefit of all modes.

(3) Vehicular Traffic

WAC 197-11-444 requires an analysis of vehicular traffic impacts, which may occur at intersection/access points. The analysis may need to cover volumes of exiting and entering vehicular traffic from surface streets, transit components/lanes, bicycle and pedestrian accommodations, access for disabled people, and traffic control devices.

Project managers are advised to review the impacts of the proposed project on adjacent surface streets to make sure the system can adequately and safely collect and distribute any new traffic loads resulting from new or revised access. Potential impacts on the following should be identified and documented, along with mitigation for significant impacts:

- Any new congestion points; congestion points that would be eliminated or reduced.
- <u>Corridor efficiencies through improved integration and maximized</u> opportunities for public transportation as required by SHB 2124.
- Traffic detours or diversions.
- Safety hazard (accident frequency related to trip volume).
- Transit routes.
- Ramp metering and queuing impacts (interstate highways).
- Surface street conditions that would affect traffic entering or exiting traffic (interstate highways).

WSDOT's Design Manual (M22-01) is the primary reference for safety and vehicular traffic issues. See particularly sections on sight distance, roadside safety, traffic barriers, impact attenuation systems, construction work zone traffic control strategies, and safety rest areas. Additional guidance for early design and identification of potential adverse environmental impacts can be found in:

- WSDOT Roadside Manual (M25-30).
- WSDOT Roadside Classification Plan (M25-31).
- WSDOT HOV Direct Access Design Guide (Draft) (M22-98).

- A Guide for Transportation Landscape and Environmental Design, American Association of State Highway and Transportation Officials, 1991.
- Procedure for Analysis and Design of Weaving Sections A User's Guide.
 Jack E. Leisch, 1985.

(4) Parking

Parking issues may include impacts to public or private parking adjacent to the highway right-of-way, and interim impacts such as construction parking, staging, and access. Local jurisdictions, especially those under GMA mandates, take the issue of parking seriously. They should be consulted early in project development to identify possible impacts, particularly if significant parking would be eliminated by a highway project and there is not adequate space for replacement parking. Parking impacts affecting local businesses and/or low-income or minority populations should be addressed as socioeconomic and environmental justice impacts (see Section 457.05 and Chapter 458).

(5) Bicycles and Pedestrians

(a) FHWA

FHWA Technical Advisory T 6640.8A (October 1987) gives the following guidelines for preparing environmental documents, specifically considerations relating to pedestrians and bicyclists.

Where pedestrian or bicycle facilities or indications of use are identified, the draft EIS should discuss the current and anticipated use of the facilities, potential impacts, and proposed measures, if any, to avoid or reduce adverse impacts to the facilities and their users.

In 2005, the Washington Legislature funded new pedestrian programs for Safe Routes to Schools and Safe Routes to Transit. The requirements under this provision must be considered in the preparation of environmental documents.

Where new facilities are proposed as a part of a highway project, the EIS should include sufficient information to explain the basis for providing the facilities (e.g., proposed bicycle facility is a link in the local plan or sidewalks will reduce project access impact to the community). The final EIS should identify the facilities to be included in the preferred alternative. Where the preferred alternative would sever an existing major route for non-motorized transportation traffic, the proposed project needs to provide a reasonable alternative route or demonstrate that such a route exists (23 USC 109(n)). To the fullest extent possible, this needs to be described in the final EIS. This guidance is online via FHWA's home page:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(b) WSDOT Design Manual

See the *Design Manual* (M 22-1) for guidance, particularly Chapter 1020, Bicycle Facilities, and Chapter 1025, Pedestrian Facilities. Other sections include information applicable to bicycle and pedestrian facilities, including shoulders on urban roads.

(6) Access for Persons with Disabilities

See the Access Board's web site at:



USDOJ's ADA Technical Assistance Program provides up-to-date information about the ADA and how to comply with its requirements. Technical assistance materials are accessible via the USDOJ web site:



Click on Alphabetical List of Components, then Civil Rights Division, then Special Topics, then ADA Home Page, then Technical Assistance Program or ADA Regulations and Technical Assistance Materials.

Or by direct link:

http://www.usdoj.gov/crt/ada/adahom1.htm

(7) Waterborne, Rail, and Air Traffic

Road projects typically have little impact on waterborne (ferries/shipping), rail, or air transportation. Potential impacts to be considered include disruption of local or regional access, particularly during construction. The following special provisions apply.

Ferries – When a highway project is adjacent to or may impact a ferry facility, the USCG, and potentially the U.S. Army Corps of Engineers may require an analysis of the impact as part of their "public interest review" under several different permits. See Section 431.06 for water-related permits.

Airports – Any proposed highway construction or alteration in the vicinity of a public or military airport will require early coordination with WSDOT's Aviation Planning Division. Potential issues range from FAA height requirements, runway protection zones (RPZs), general clear zone requirements, and approved landscape/vegetation near the designated clear zones and access.

Federal statutes require that reconstruction or relocation of any federally funded highway located within a 3.2 kilometer radius of an airport facility must be coordinated with FAA to ensure that airway-highway clearances are adequate for the safe movement of air and highway traffic (23 USC 318 and 23 CFR 620 Subpart A, Highway Improvements in the Vicinity of Airports). See Section 520.13 for FAA public notice requirements.

Railroads – WSDOT's *Design Manual* (Chapter 930) includes several standards applicable when a highway project crosses a railroad at grade or at a different elevation.

460.06 Permits and Approvals

Permits relating to Transportation are addressed in the following sections:

Federal

- Section 520.03 Section 10 Permit
- Section 520.04 Section 9 Permit
- Section 520.13 Other Federal Approvals (Notification of Work Affecting Navigable Airspace)

Local

• Section 550.10 – Other Local Approvals (Detour and Haul Road Agreements)

There are no direct permits related to impacts upon waterborne, rail, or air traffic. However, it is advisable to contact the appropriate agencies (Washington State Ferry Division, Federal Railroad Administration, or the FAA) for any potential conflicts that need to be addressed during the environmental analysis.

460.07 Non-Road Project Requirements

Non-road projects are generally subject to the same policies, procedures, or permits that apply to road projects. The mostly likely transportation impact of non-road projects is changes in the traffic flow and circulation around existing operational facilities. Early environmental screening should identify any parking or traffic conflicts, both short-term (during construction) and long-term (ongoing operations).

The State Transportation Commission's Policy Catalog policy 4.3.6 regarding ferry system parking states: "Parking policies and facilities directly affect the traffic mix and service levels on each Washington State Ferries (WSF) route, and thereby impact the need for future vessel acquisitions. Policies and facilities also influence local and regional traffic volumes, traffic patterns, and land use development."

460.08 Exhibits

None.

Introduction
Applicable Statutes and Regulations
Policy Guidance
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Key to Icons

Web site.*

Interagency agreement.

470.01 Introduction

Transportation projects may impact public services and utilities by increasing demand beyond the capability of service providers or by disrupting service. Construction impacts may include requiring relocation or adjustment of utility lines or facilities or interfering with police, fire, and emergency services.

Public services in a project area may include fire, police, schools, parks and recreational facilities, and maintenance services. Utilities may include municipal agencies, special utility districts, and private companies that provide services such as electricity, natural gas, water, wastewater or stormwater collection, and telecommunications.

This chapter reviews environmental considerations related to these public services. See related discussions on socioeconomic impacts (**Chapter 457**) and transportation (**Chapter 460**).

(1) Summary of Requirements

Under FHWA's NEPA implementing regulations, impacts on public services are considered as a socio-economic indicator (see **Chapter 457**). Under SEPA regulations, public services and utilities are included in the analysis of impacts to the built environment.

WSDOT's Discipline Report checklist on Social Elements (see Exhibit 457-1) includes impacts on public services. WSDOT's *Utilities Manual* (M 22-87) and FHWA Technical Advisory may also offer some guidance.

In preparing preliminary engineering plans and final PS&Es, the regional project manager or utility staff negotiates agreements with utilities whose facilities will require relocation or adjustment as a result of a transportation project.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the EAO home page: http://www.wsdot.wa.gov/environment/

(2) Abbreviations and Acronyms

None related to public services and utilities. See **Appendix A** for a general list of abbreviations and acronyms used in the EPM.

(3) Glossary

See Appendix B for a general glossary of terms used in the EPM.

Public service – SEPA lists fire, police, schools, parks or other recreational facilities, maintenance, communications, water/stormwater, sewer/solid waste, and other governmental services or utilities as elements of the built environment to be considered during the environmental review process.

Relocation – The adjustment of utility facilities required by a highway project. Includes removing and installing facilities, acquiring necessary property rights in the new location, moving or rearranging existing facilities, or changing the type of facility, including any necessary safety and protective measures. Also means constructing a replacement facility, functionally equal to the existing facility, where necessary for continuous operation of the utility service, project economy, or for staging highway construction.

Utility – Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, cable television, electric power, light, heat, gas, oil, crude products, water, steam, waste, stormwater not connected with highway drainage, and other similar commodities, including any fire or police signal systems, street lighting systems, and traffic control system interties, which directly or indirectly serve the public. (WSDOT *Utilities Manual* (M 22-87), Chapter 2.)

470.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to public services and utilities issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 470.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section <u>4321</u>, and implementing regulations require that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations are given due weight in project decision-making; public services and utilities are not specifically mentioned.

The State Environmental Policy Act (SEPA) and its implementing regulations (WAC 197-11) mandate a similar procedure for state and local actions, and public services and utilities are listed among the elements of the built environment to be considered. Specifically, the discussion of significant impacts is to include the "cost of and effects on public services, such as utilities, roads, fire and police protection, that may result from the project" (WAC 197-11-44(6)).

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on NEPA/SEPA procedures, see Chapter 410 and Chapter 411.

(2) CFR Title 23 – Reimbursement for Utility Relocation

Title 23 of the Code of Federal Regulations implements and carries out the provisions of federal law relating to the administration of federal aid for highways. Subpart A of Part 645 of 23 CFR prescribes the policies, procedures, and reimbursement provisions for the adjustment and relocation of utility facilities on federally aided projects, and Subpart B prescribes policies and procedures for accommodating utility facilities and private lines on the right-of-way of federally aided projects. (For more information on utilities accommodation, see **Chapter 810**.) The text of 23 CFR 645 can be found online at:

http://www.access.gpo.gov/nara/cfr/waisidx_01/23cfr645_01.html

(3) RCW 47.44 – Franchises on State Highways

Under this law, WSDOT may grant franchises to use any state highway for the construction and maintenance of water, flume, gas, oil, or coal pipes; telephone, telegraph, and power lines and conduits; trams or railways; and any structures or facilities which are part of an urban public transportation system owned or operated by a municipal corporation, other state agency or department, and any other such facilities. RCW 47.44 is on line at:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=47.

(4) WAC 468.34 – Utility Franchises and Permits

This section of the WAC relating to WSDOT establishes procedures related to granting utility permits and franchises on WSDOT rights-of-way. WAC 468.34 is available on line at:

http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapter=46 8-34

470.03 Policy Guidance

To assist in implementing CFR Title 23, FHWA has published a program guide regarding Utility Relocation and Accommodation on Federal Aid Projects. (For more information on utilities accommodation, see **Chapter 810**.) The program guide is available on line at:

http://www.fhwa.dot.gov/reports/utilguid/

WSDOT's Utilities Accommodation Policy (M 22-86) was established in cooperation with the utility industry. It follows AASHTO policy guidelines on accommodating utilities within highway and freeway rights of way, and is in compliance with state laws and regulations governing the accommodation of utility facilities and with federal aid policies and procedures. Its objective is to prescribe the means by which utility installations, when located in a manner not interfering with the free and safe flow of traffic, or otherwise impairing the highway of its visual quality, may be accommodated within state highway rights-of-way. The policy is online at:

ttp://www.wsdot.wa.gov/fasc/EngineeringPublications/manuals/Final%20UAP.pdf

470.04 Interagency Agreements

WSDOT has a Memorandum of Understanding with the U.S. Forest Service (USFS) relating to highways over national forest lands. The MOU identifies procedures for WSDOT and USFS to follow in allowing utilities within a highway right of way that crosses the National Forest boundary. The MOU is online at:



http://www.wsdot.wa.gov/environment/compliance/agreements.htm

Memorandum of Understanding Relating to Coordination of Transportation Activities on National Forest Lands.

A Memorandum of Understanding between WSDOT and the Washington Utility Coordination Council (WUCC) related to Scenic Classification for Utilities Accommodation on State Highway Rights of Way establishes the continued operation and upgrading of the scenic classification system as described in WAC 468-34-330. This MOU is part of the WSDOT Utilities Accommodation Policy (M-22-86) noted in Section 470.03. (For more information on utilities accommodation, see Chapter 810.)

WSDOT and the Washington State Department of Natural Resources (WDNR) issued a joint memorandum to their staff on April 4, 2005 to work cooperatively on utility crossings attached to bridges that cross over state-owned aquatic lands. WSDOT and WDNR continue to work cooperatively to develop a standardized easement template for state-owned aquatic lands. See Section 540.16, Aquatic Lands Use Authorization.

470.05 **Technical Guidance**

WSDOT has no discipline report checklist to guide analysis of utility and public service impacts; however, impacts on public services are covered in the Social Element Discipline Report (see checklist, Exhibit 457-1).

Under SEPA, "impacts to public services and utilities" refers to potential significant disruption or increased demand on services.

(1) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing and processing environmental and Section 4(f) documents. For social impacts, including potential impacts on public services, the draft EIS should discuss the impacts on services listed below for each alternative commensurate with the level of impacts and to the extent they are distinguishable. Discussion of impacts on services such as school districts, recreation areas, churches, businesses, police, and fire protection should include both direct impacts to these entities and the indirect impacts resulting from the displacement of households and businesses. (See Section 457.05.)

For details, see FHWA's home page:



http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.



http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(2) **Construction Impacts**

Transportation projects are mostly likely to impact public services and utilities during construction. Impacts might include, for example, delays in school bus service, police, fire, and emergency services; and relocation of utility facilities.

Safety and operation of the highway facility are primary considerations when dealing with utility use of WSDOT right of way. Financial impacts to the utilities or transportation projects are determined in general based on the utilities compensable real property interest. For details on the options for dealing with any utility relocation work, and any related environmental review and permitting work, see Exhibit 310-1.

WSDOT Utilities Manual (a)

WSDOT's Utilities Manual (M 22-87) describes general practices, policies, and procedures with respect to agreements, permits, and franchises between WSDOT and other entities, including those using WSDOT's right of way and those affected by WSDOT projects. Chapter 2 gives specific guidance for utility agreements.

The *Utilities Manual* includes detailed procedures and samples for preparing preliminary engineering agreements and construction agreements. The Utilities Manual is available online via WSDOT's home page:



http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library, then Utilities Manual.

Or by direct link:



http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/ UtilitiesManual.pdf

The manual also includes information on approval authority, utility property rights, authorization to proceed, extra work, administrative and supervisory responsibility, inspection and records, and checklists for utility contracts and regional review.

(b) WSDOT Design Manual

In Section 1410, Right-of-Way Considerations, WSDOT's Design Manual (M 22-01) describes the region's responsibility to ascertain ownership of all utilities and arrange for necessary adjustment, including relocation of portions of the utility if necessary. Provisions for relocation or adjustment are included in the PS&E plans when such items are normal construction items and WSDOT is obligated for moving expenses, or when the utility requests that relocation be performed by WSDOT and the Director of Environmental and Engineering Programs or Region Administrator has approved the request. Readjustment may require WSDOT to purchase substitute rights-of-way or easements for eventual transfer to the utility.

Such right of way or easements must be shown on the ROW plans with the same engineering detail as for highway right-of-way. The Design Manual is available online via WSDOT's home page:

http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library, then select a Design Manual.

Or by direct link:

http://www.wsdot.wa.gov/fasc/EngineeringPublications/library.htm

(3) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data, including a category called Building and Utilities. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

470.06 Permits and Approvals

None.

470.07 Non-Road Project Requirements

Requirements for ferry, aviation, and rail projects are similar to those for highways.

470.08 Exhibits

None.

480.01	Introduction
480.02	Applicable Statutes and Regulations
480.03	Policy Guidance
480.04	Interagency Agreements
480.05	Technical Guidance
480.06	Permits and Approvals
480.07	Non-Road Project Requirements
480.08	Exhibits

Key to Icon



Web site.*

480.01 Introduction

This chapter deals with some of the most challenging sections of an environmental document, namely consideration of:

- Indirect (or secondary) impacts
- Cumulative impacts
- Irreversible and irretrievable commitment of resources
- Relationship between local short-term uses of the environment and long-term productivity

See **Table 480-1** for a summary comparison of direct, indirect and cumulative effects. **Exhibit 480-1** illustrates these relationships in the form of flowcharts. **Exhibit 480-2** shows where indirect effects analysis fits in the process of analyzing impacts and developing proposed mitigation.

Table 480-1: Summary of Direct, Indirect, and Cumulative Effects

Type of Effect	Direct	Indirect	Cumulative
Nature of effect	Typical/inevitable/predictable	Reasonably foreseeable/probable	Reasonably foreseeable/probable
Cause of effect	Project	Project's direct and indirect effects	Project's direct and indirect effects and effects of other activities
Timing of effect	Project construction and implementation	At some future time after direct effects*	At time of project construction* or in the future
Location of effect	Within project impact area	Within boundaries of systems affected by project	Within boundaries of systems affected by the project

^{*} Indirect and cumulative effects could potentially occur before the project is built (i.e. speculators initiating land use actions in anticipation of project construction).

Source: A Guidebook for Evaluating the Indirect Land Use and Growth Impacts of Highway Improvements, Final Report APR 327, Oregon Department of Transportation and FHWA, April 2001

In the past, indirect and cumulative impacts have seldom affected FHWA/WSDOT environmental and project location decisions because guidance to help assess those impacts has been limited. The emphasis has been on direct impacts, and efforts to

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

improve identification and analysis of impacts have centered on areas of the most visible and immediate concern.

In recent years, the potential for indirect and cumulative impacts – particularly to aquatic resources from a watershed perspective and to air quality – has been increasingly recognized. However, indirect effects and cumulative effects are difficult to understand and assess. Indirect and cumulative effects can have repercussions for social and economic conditions, natural resources, cultural and historical resources, and other conditions.

Part of the confusion around indirect and cumulative effects is due to differing guidance derived from several statutes, primarily the National Environmental Policy Act (NEPA), and Endangered Species Act (ESA). For example, both NEPA and ESA regulations require cumulative and indirect effects analysis, but regulators differ in their application and interpretation. Similarly, NEPA and the ESA share a common threshold for determining whether to include growth-inducing effects among the indirect effects of a proposed action. Though the scope of the indirect effects analysis differs greatly under NEPA and ESA, the same causal relationship should be used for writing the NEPA document as for writing the biological opinion for ESA compliance (see Section 436.05).

WSDOT is working with federal and state agencies to refine the scope and content of guidance for addressing indirect and cumulative effects. Information in this chapter is the most current available, and will continue to be updated.

(1) Summary of Requirements

Both NEPA and SEPA require consideration of cumulative as well as direct and indirect impacts, irretrievable and irreversible commitment of resources, and the relationship between local short-term uses of the environment and long-term productivity. Cumulative impacts should be discussed in individual sections on each element of the environment, along with direct and indirect impacts. A summary of cumulative impacts may also be included in a separate section. Environmental documents should also include a separate discussion of the overall irretrievable and irrevocable commitment of resources, and the relationship between local short-term uses of the environment and long-term productivity.

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on NEPA/SEPA procedures, see Chapter 410 and Chapter 411.

(2) Abbreviations and Acronyms

None specifically related to indirect and cumulative impacts. See **Appendix A** for a general list of abbreviations and acronyms referenced in the EPM.

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Effect - See "Impact."

Cumulative impact (NEPA) – Impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person

undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Defined by FHWA and Council on Environmental Quality (CEQ) regulations (40 CFR 1508.7).

Cumulative effects (ESA) – Effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR §402.02). This section applies only to Section 7 analysis and should not be confused with the broader use of this term in NEPA or other environmental laws. Defined in Endangered Species Consultation Handbook, March 1998.

Direct effect – Effect caused by the proposed action and occurring at the same time and place.

Indirect effect – Effect caused by the proposed action that is later in time or farther removed in distance, but still reasonably foreseeable; sometimes referred to as "secondary effect". Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8).

Impact – Synonymous with "Effect". Includes ecological impacts (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health impacts, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes the effect will be beneficial.

Irretrievable – Impossible to retrieve or recover.

Irreversible – Impossible to reverse.

Resource – Referred to in NEPA and SEPA implementing regulations as "natural or depletable" resources (CEQ 1502.16; WAC 197-11-440 (6)) and renewable or nonrenewable resources (WAC 197-11-444). FHWA Technical Advisory T 6640.8A (October 30, 1987) refers to "natural, physical, human, and fiscal resources" in guidance on irreversible and irretrievable commitments of resources.

480.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to indirect and cumulative impacts issues. See **Appendix D** for a list of statutes referenced in the EPM.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section <u>4321</u>, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations, including direct, indirect, and cumulative impacts, are given due weight in project decision-making. The State Environmental Policy Act (SEPA), RCW 43.21C, mandates a similar procedure for state and local actions. See **Chapter 410** and **Chapter 411** for detailed guidance.

In addition to direct and observable effects, agencies are required to examine effects that may be indeterminate and not easily recognized; these are referred to as "<u>indirect (secondary)</u> and cumulative impacts."

Under NEPA and SEPA, an EIS also is to include "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity;" and "any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." SEPA includes "significant irrevocable commitment of natural resources" in the definition of "significant impacts" (RCW 43.21C.030).

A good overview of NEPA requirements and FHWA guidance is available on FHWA's environmental home page:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then NEPA: Project Development Process, then Transportation Decisionmaking, then Secondary and Cumulative Impacts (under Environmental Impacts and Mitigation).

Or by direct link:

http://www.fhwa.dot.gov/environment/2nd_cml.htm

(2) NEPA Implementing Regulations

(a) CEQ Rules

The 1978 regulations of the Council on Environmental Quality (CEQ) implemented the action provisions of NEPA. These regulations broadly define the direct, indirect, and cumulative effects that must be evaluated. Generally, indirect effects are induced by the action. They include a variety of effects such as changes in land use, water quality, economic vitality, and population density. Cumulative impacts are less defined and may be undetectable when viewed in the context of direct and indirect impacts, but nonetheless can add to other disturbances and eventually lead to a measurable environmental change. They require that agencies examine consequences that may occur in areas beyond the immediate influence of a proposed action and at some time in the future (40 CFR 1508).

(b) FHWA Rules

FHWA implements NEPA and the CEQ guidelines with its environmental regulations (23 CFR 771). These regulations interpret the CEQ guidelines on indirect and cumulative impacts. These impacts are referenced when justification is required for the use of categorically excluded actions. Categorical Exclusions (CE) are actions which "do not induce indirect significant impacts to planned growth or land use…" or "do not otherwise, either individually or cumulatively, have any significant impacts.

(3) SEPA Implementing Regulations

The SEPA implementing regulations also specify that direct, indirect, and cumulative impacts must be considered in the EIS (WAC 197-11-70-92). For example, impacts include those resulting from growth caused by a proposal, as well as the likelihood that the present proposal will serve as a precedent for

future actions. The range of impacts to be analyzed (direct, indirect, and cumulative) may be wider than the impacts for which mitigation measures are required of applicants (WAC 197-11-060 (4)).

480.03 Policy Guidance

FHWA policy guidance is incorporated in the technical guidance documents described in **Section 480.05**.

480.04 Interagency Agreements

None identified. See **Appendix E** for a complete index to interagency agreements referenced in the EPM.

480.05 Technical Guidance

Some general sources of technical guidance are the FHWA and CEQ reference materials described below.

(1) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental and Section 4(f) documents. The advisory suggests the type of <u>indirect (secondary)</u> impacts that should be discussed in several environmental topics (land use, farmland, socio-economic, and energy). These generally involve resources that can be sensitive to change induced by a transportation project, such as the social and economic structure of a community, floodplains, and area-wide water quality. While it does not specifically address cumulative impacts, the advisory does includes guidance for preparing sections on the relationship between short-term uses and long-term productivity and on irreversible and irretrievable commitments of resources (see below). This document is available on FHWA's web site:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(a) Relationship between Short-term Uses and Long-term Productivity

The EIS should discuss in general terms the relationship of local short-term impacts and use of resources, and the maintenance and enhancement of long-term productivity. The discussion might recognize that alternatives other than "no action" would have similar impacts. The discussion should point out that transportation improvements are based on state and/or local comprehensive planning which considers the need for present and future traffic requirements within the context of present and future land use development. In such a situation, one might then conclude that the local short-term impacts and use of resources by the proposed action is consistent with the maintenance and enhancement of long-term productivity for the local area, state, or region.

(b) Irreversible and Irretrievable Commitment of Resources

The EIS should discuss in general terms the irreversible and irretrievable commitment of resources resulting from the proposed action. This general discussion might recognize that the alternatives would require a similar commitment of natural, physical, human, and fiscal resources. An example of such discussion is given online at the FHWA web site cited above.

(2) FHWA Guidance on Indirect and Cumulative Effects

The FHWA issued interim guidance on indirect and cumulative impacts in the NEPA process on January 31, 2003. The guidance reviews existing NEPA requirements regarding consideration, analysis, documentation, and mitigation of direct, indirect, and cumulative impacts. References to indirect impact and cumulative impact guidance, State DOT procedures, and training opportunities are included. The guidance is online at:

http://environment.fhwa.dot.gov/guidebook/gaimpactmemo.htm

FHWA also hosts a "community of practice" web site where information is exchanged by NEPA practitioners, including ongoing discussions on indirect and cumulative impacts.

http://nepa.fhwa.dot.gov

FHWA's August 20, 1992 memorandum and position paper provides guidance on methods to deal with evaluation of <u>indirect (secondary)</u> or cumulative impacts.

This paper offers background information and conceptual guidance, but does not prescribe specific techniques to be used during project analysis. For example, it suggests that an examination of indirect (secondary) and cumulative consequences should focus on the functional relationships of resources with larger systems. If these relationships are understood, then conclusions on a project's likely indirect (secondary) and cumulative impacts to the overall system should be possible. This informal guidance is available via FHWA's home page:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Built and Social Environment, then Indirect and Cumulative Impacts.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/v2ch6.htm

(3) CEQ Guidance on Cumulative Effects

A good resource for cumulative effects analysis is *CEQ Handbook: Considering Cumulative Effects under the National Environmental Protection Act* (January 1997). This handbook presents the results of research and consultations by CEQ concerning the consideration of cumulative effects. It introduces the complex issue of cumulative effects, outlines general principles, presents useful steps, and provides information on methods of cumulative effects analysis and data sources. The handbook includes an 11-step process for analyzing cumulative impacts.

The handbook does not establish requirements for such analyses. It should not be viewed as formal CEQ guidance, nor are its recommendations intended to be legally binding. The handbook is available via FHWA's home page:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Built and Social Environment, then Indirect and Cumulative Impacts.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/v2ch6.htm

(4) Environmental Services Office (ESO)

ESO staff are gathering examples of successful project-level environmental studies and sample methods/processes from Washington and other states to build a compendium of best practices. In addition, the ESO is working to improve its guidance regarding the assessment of indirect and cumulative effects. Watch for a new link on the ESO web site:

www.wsdot.wa.gov/environment/

(5) Additional Resources

The most current information and additional resources can be found on the American Association of State Highway and Transportation Officials (AASHTO) Center for Environmental Excellence Internet site.

http://environment.transportation.org/secondary_overview.asp

See also: A Guidebook for Evaluating the Indirect Land Use and Growth Impacts of Highway Improvements, Final Report SPR 327, Oregon Department of Transportation and FHWA, April 2001. The guidebook is available online at:

http://egov.oregon.gov/ODOT/TD/TP_RES/docs/Reports/AGuidebookforUsingIndirLand.pdf

Appendices are available at:

http://egov.oregon.gov/ODOT/TD/TP_RES/docs/Reports/AGidbookUsingIndirLandAPDXA-C.pdf

See also Executive Order 13274 Indirect and Cumulative Impacts Work Group, Draft Baseline Report, March 15, 2005, online at:

http://www.fhwa.dot.gov/stewardshipeo/icireport.htm

480.06 Permits

None required.

480.07 Non-Road Project Requirements

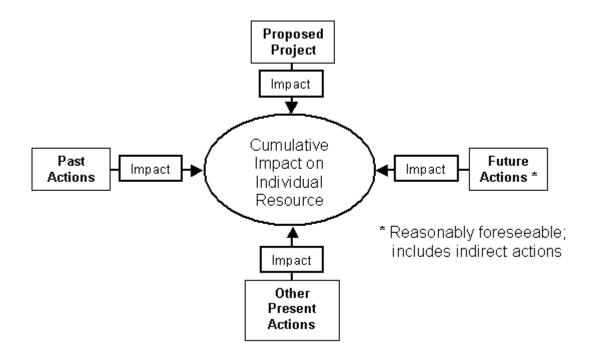
Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies and procedures that apply to road projects.

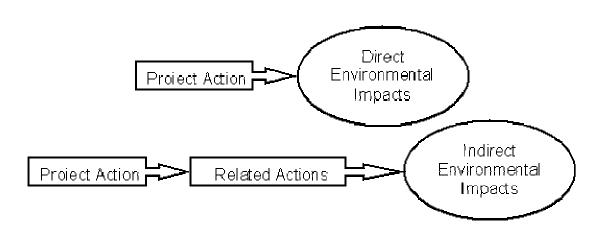
480.08 Exhibits

Exhibit 480-1 – Indirect and Cumulative Effects Flowcharts.

Exhibit 480-2 – Framework for Indirect Effects Analysis.

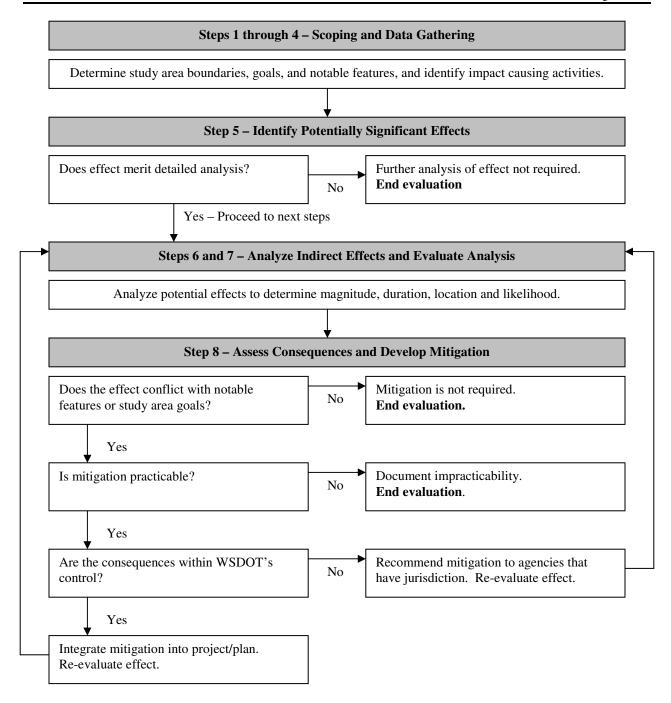
Indirect and Cumulative Effects Flowcharts





Source: Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process, FHWA, 2003.

Framework for Indirect Effects Analysis



Source: Guidance for Assessing Indirect and Cumulative Impacts of

Transportation Projects in North Carolina: Volume II: Practitioner's Handbook,

State of North Carolina, Department of Transportation/Department of

Environment and Natural Resources, November 2001.

490.01	Introduction
490.02	Commitment File
490.03	Managing Commitments Made in NEPA/SEPA Documents
490.04	Managing Commitments Made in Stand Alone Documents
490.05	Exhibits

490.01 Introduction

NEPA/SEPA legislation and implementing regulations require implementation and monitoring of mitigation measures to reduce or eliminate adverse environmental impacts associated with a planned action. (For statutory guidance, see: 42 USC 4371 *et seq.*, Presidential Order 11514, 23 CFR 771.109(6), 40 CFR 1505.2(C), 1505.3, RCW 43.21C, and WAC 197-11-660.)

WSDOT must ensure that commitments made during <u>Design and Environmental</u> Review are clearly recorded and tracked for incorporation in design, permitting, and/or PS&E, and subsequent implementation (where agreed to or required) in construction and maintenance. As final NEPA/SEPA documents are completed, commitments made during <u>Design</u> and <u>Environmental Review are incorporated</u> in the Commitment File and logged in the Commitment Tracking System.

490.02 Commitment File

For WSDOT projects, the Commitment File consists of proposed mitigating measures, commitments made to resource agencies or other agencies with permitting authority, and any other environmental or design commitments made on behalf of the project. The commitments generated by the environmental process are merged with commitments made through other processes including right-of-way acquisition (e.g. preserving a tree), design, and maintenance (e.g. not spraying roadside slopes with herbicides).

When project documents reach Headquarters, the Project Development Office reviews the design file and PS&E for inclusion of appropriate commitments. See also WSDOT's *Design Manual* (M 22-01), Section 220.08(3). The Region is responsible for establishing and maintaining this project commitment file.

490.03 Managing Commitments Made in NEPA/SEPA Documents

Commitments/mitigation measures made within a NEPA or SEPA document should be documented in the following way:

- Commitments and/or mitigation measures proposed in the DEIS should be summarized in an appendix and included in the Commitment File.
- Summarize commitments and/or mitigation measures, listed in bulleted form, in an appendix to the FEIS.

 Include all final commitments/mitigation measures made in RODs, FONSIs, DCEs and mitigated DNSs in the Commitment File and enter them into the Commitment Tracking System.

490.04 Managing Commitments Made in Stand Alone Documents

Sometimes commitments are made in processes that run concurrently with the NEPA/SEPA process and may be included in separate documents. Examples of this include Section 4(f), Section 6(f), Section 106, and ESA conservation measures. These commitments should also be summarized and bulleted, included in the Commitment File and added to the Commitment Tracking System as they are finalized.

490.05 Exhibits

None.

500.01	Introduction
500.02	Process Overview
500.03	Organization of Part 5
500.04	Permits and Approvals Required for WSDOT Projects and Activities
500.05	Abbreviations and Acronyms
500.06	Glossary
500.07	Exhibits

500.01 Introduction

Environmental permits are needed for projects and activities in virtually all of WSDOT's major highway programs including highway maintenance (Program M), traffic operations (Program Q), highway preservation (Program P), highway improvement (Program I), highway safety (Subprogram I2), economic initiatives (Subprogram I3), and environmental retrofit (Subprogram I4). Environmental permits are also required in WSDOT's non-highway programs including the state ferry system, state airport system, and freight rail system.

Part 5 focuses on procedures for obtaining environmental permits and approvals, and incorporating permit conditions and other environmental commitments into WSDOT projects and programs. Many of the permits are required for construction and are usually obtained during the final design phase when plans, specifications and estimates (PS&E) are prepared.

Part 5 includes environmental permits and approvals that are required for maintenance and operations and property management as well. Tracking environmental commitments during construction, maintenance and operations, and property management is discussed in Part 6 through Part 8.

Because the actions proposed by each project vary and environmental regulations are complex and constantly evolving, this guidance is necessarily general and reliance on the EPM alone is insufficient. Each legislative session, new laws are developed, and old laws are altered or appealed. Changes may also occur as agencies update administrative codes, revise fees, or reorganize. The conditions that trigger a permit or approval are subject to interpretation and may change as new regulations are developed or court decisions alter their applicability.

The actions and resulting impacts or positive aspects of each project determine which permits and approvals apply and how they apply. Regional or Headquarters environmental staff should be consulted at each stage of the project design to review the permits and approvals that may be required and answer questions about application procedures. Agencies issuing the permit should also be contacted for current requirements. Online guidance is continually being added and updated through WSDOT's Environmental Services Office web site and various agency web sites.

500.02 Process Overview

This section describes how environmental permitting is related to other phases of project development. This relationship is illustrated in **Figure 500-1**, Environmental Permitting and PS&E.

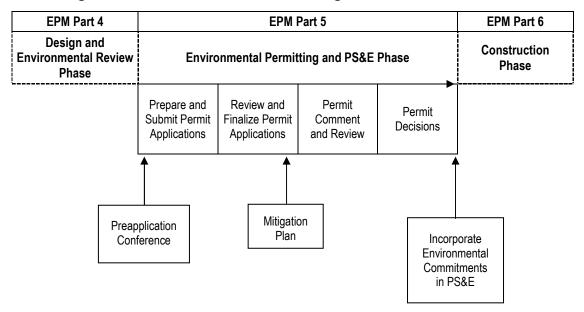


Figure 500-1: Environmental Permitting and PS&E Phase

- Environmental commitments for any given project are made throughout WSDOT's process of project scoping and project development. In project scoping, the Environmental Review Summary (ERS) is prepared to accompany the Project Definition and the Design Decision Summary (see Chapter 310). The ERS identifies the NEPA classification and many of the likely permits.
- In earlier stages of project development, during environmental review and NEPA/SEPA documentation, many plans and reports are developed that are later required for permit applications, and are used as the basis for permit conditions (see Part 4).
- During construction, maintenance and operations, and property management,
 WSDOT is responsible for documenting compliance with all permit conditions and other environmental commitments, as described in Part 6 through Part 8.

(1) Design and Permitting

Environmental permits require information prepared during the design phase to demonstrate compliance with environmental rules, regulations, and policies. To avoid delays in project delivery, the design engineer should understand and anticipate this exchange of information. The timing of this exchange often affects design schedules while the permit requirements can affect the design itself. Often, several iterations of design are necessary before full compliance with permit requirements is achieved. In complex cases, negotiations over permit conditions also result in iterative designs as issues are raised and resolved.

Almost all WSDOT projects are constructed under the design-bid-build delivery process illustrated in **Figure 500-2** for a mainline overlay project. Under this process, WSDOT prepares the design to 100 percent completion before submitting it to competitive bid by contractors. The successful bidder constructs the project according to the complete plans. **Part 5** covers the permitting process under a design-bid-build project delivery system.

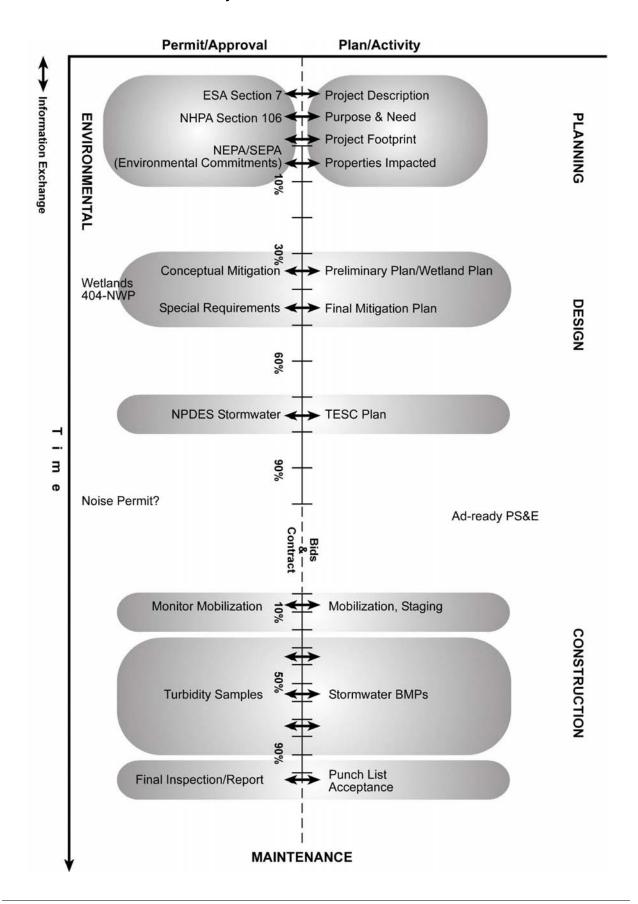
WSDOT also uses a design-build project delivery system. In this process, WSDOT completes the preliminary design and then turns it over to a contractor who builds it based on the preliminary design plus additional design by the contractor. The contractor has a great deal more freedom in selecting the means and methods of construction under design-build. Future editions of the EPM will address permitting under a design-build delivery system.

(2) Environmental Commitments

Environmental commitments for many construction and major maintenance projects are made throughout the scoping and project development process in various forms, including mitigation agreements associated with NEPA/SEPA, and conditions attached to permits and approvals. Prior agency-wide commitments have been made in interagency agreements such as Memoranda of Understanding and Implementing Agreements (see Appendix), and in WSDOT policy. Chapter 590 summarizes WSDOT's approach to tracking and ensuring compliance with all these commitments.

The permit process begins well in advance of actual permit applications. For some permits, WSDOT has already negotiated permit conditions through the use of general or programmatic permits. These permits typically apply to repetitive, relatively simple construction projects or maintenance activities that are perceived to result in no significant impacts to the natural and built environment. The permit conditions apply regardless of the specific actions proposed by the project. For complex projects, the negotiations with permit agencies often begin during the environmental review phase for compliance with NEPA and SEPA. The mitigation measures developed for the NEPA/SEPA documents are documented as permit conditions on subsequent permits and contract plans and specifications.

Figure 500-2: Environmental Interrelationship: Safety Corridor Channelization Mainline



500.03 Organization of Part 5

As a "primer" on permitting procedures and issues facing WSDOT, Chapter 510 provides general information in the form of answers to "Frequently Asked Questions." These deal with such topics as types of permits, timing and scheduling, where to go for information and assistance, data and documentation requirements, agency authority and jurisdiction, and WSDOT roles and responsibilities.

Chapter 520 through Chapter 550 provide detailed guidance on each permit or other approval likely to be needed by WSDOT. This guidance will help plan and schedule permit applications and keep track of environmental commitments in permit conditions and other documents.

"Permits and approvals" as used in the EPM include any document that needs a signature by someone in authority at the agency having statutory jurisdiction over that activity. These documents may be called a permit, approval, certification, concurrence, or easement, any of which represent an agency authorizing WSDOT to conduct the activity as long as it is done in a particular manner.

Permits are organized according to the federal, tribal, state, or local jurisdiction that issues the permit or gives the approval. Federal statutes sometimes allow delegation of federal regulatory authority to states. For example, authority for regulating activities pursuant to Section 401 and Section 402 of the Clean Water Act has been delegated to Ecology by the USEPA. Authority for regulating activities under the Safe Drinking Water Act has been delegated to Ecology and Washington Department of Health (DOH) by the USEPA. In such cases, the associated permits and approvals are covered in Chapter 540.

Similarly, some state authority has been delegated to local governments. For example, depending on their size, onsite sewage disposal systems are regulated by Ecology or DOH; smaller systems (under 3,500 gallons per day (gpd)) are regulated by local health authorities. Under the state Shoreline Management Act, activities impacting shorelines are regulated by local jurisdictions with Ecology oversight.

Tribal approvals are covered separately, in **Chapter 530**, in recognition of the tribes' authority over activities within their jurisdictions. For activities affecting tribal rights in "usual and accustomed" fishing or hunting areas guaranteed by treaty, tribal consultation may be required before some permits can be approved. Under federal statutes, tribal consultation is required, and in some instances the permit or approval is granted by the tribal government rather than a state or federal agency. For activities on tribal reservation, tribal law may require the same type of permits or approvals as in local jurisdictions.

Jurisdictional issues can arise due to court decisions or changes in the laws. For example, activities affecting isolated wetlands were regulated by the Corps through Section 404 permits until January 2004 when the U.S. Supreme Court ruled that isolated wetlands are not within Section 404 jurisdiction. Ecology responded by regulating isolated wetlands through its authority under the State Water Pollution Control Act, RCW 90.48 (see Section 540.13).

Within each chapter on federal, tribal, state, and local approvals, permit sections are structured according to how frequently they are needed for WSDOT activities; those

most often needed are covered first. An exception is that permits issued by a given agency are grouped together (e.g., Section 540.16 to Section 540.20 are WDNR permits, although some are only occasionally needed). At the end of each section on federal, tribal, state and local approvals is a general section on "Other Approvals" – those needed for minor or very rare activities.

Information for each permit or approval is organized in these categories:

- (1) Overview Includes agency issuing permit, statutory authority, regulated activities, exempt activities, geographic extent, types of permits, prerequisite permits and approvals, related permits and approvals, interagency agreements, processing time, and fees.
- (2) *How to Apply* Includes JARPA, pre-application conference, special information requirements, public notice, submitting the application, agency and public review, appeal process, and post-permitting requirements.
- (3) For More Information Includes references to background information in Chapter 420 through Chapter 470 and other general information, including Internet references, pertinent to the permit.
- (4) **Permit Assistance** Includes regional environmental staff, other WSDOT resources, and contacts at the regulating agency.
- (5) Information Last Updated

Chapter 560 and **Chapter 580** are left vacant to allow for addition of further guidance on permitting in subsequent editions of the EPM, including permitting under a design-build project delivery process.

Chapter 590 concludes **Part 5** with information on how environmental commitments made as permit conditions or earlier in the design process are incorporated into contract documents during PS&E.

500.04 Permits and Approvals Required for WSDOT Projects and Activities

The Environmental Review Summary (ERS) prepared as part of the Project Summary identifies the most common environmental permits that may be required based on the information known at that stage (see **Chapter 310**). As the project design develops, additional permits and approvals may be identified.

Appendix F is a comprehensive list of all environmental permits that may be required for WSDOT projects. Table 400-1 includes those most often initiated during environmental review; these are discussed in detail in Part 4. Table 500-1 includes permits and approvals obtained prior to a finalized PS&E; these are discussed in detail in Part 5. For each permit or approval, the tables identify the responsible agency, triggering conditions, statutory authority, and a reference to sections in the EPM where detailed guidance is located.

Of these permits and approvals, not all are required on every project. For example, a November 2003 WSDOT study of 383 projects with an ad date between January 1, 1999 and December 1, 2001 showed that:

- About 23% needed Section 401 Water Quality Certification (88 projects); 89% (80 projects) were covered under General Nationwide Section 404 permits from the Corps, and eight required individual Corps permits.
- About 14% needed an NPDES permit (55 projects); 53 were covered under the NPDES Construction Stormwater General Permit, and only two required an individual NPDES permit.

The small percentage of proposed projects that generate complex environmental issues and require complex permit negotiation consume significant staff resources, and can result in project delay.

The *Design Manual* (Chapter 240.03) contains tables showing the probability of common environmental permits applying to the most common construction projects.

Part 5 and the 2004 WSDOT Standard Specifications Manual (Section 1-07.5, Fish and Wildlife and Ecology Regulations) contains guidance applicable during construction activities.

500.05 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 5** are listed below. Others are found in the general list in **Appendix A**.

DN Decision Notice (United States Forest Service)

FPA/N Forest Practices Application/Notification

HPA Hydraulic Permit Approval

NOI Notice of Intent (to apply for a Corps/NPDES General Permit)

NPDES National Pollutant Discharge Elimination System

NWP Nationwide Permit (Corps)SWDP State Waste Discharge Permit

U&A Usual and Accustomed Tribal fishing areas

500.06 Glossary

A glossary of terms used in **Part 5** are listed below. See **Appendix B** for a general glossary of terms used in the EPM.

(1) Types of Permits

Approval – General term referring to any document other than a permit that needs a signature by someone in authority at the agency having statutory jurisdiction over that activity. The document may be called an approval, certification, concurrence, easement, or license, all of which represent an agency saying, "Yes we authorize you to conduct this activity as long as you do it in this manner." An approval may specify conditions under which the activity is approved.

Federal approval – Approval given to document a federal agency's concurrence that a project complies with a federal statute. These are discussed in Chapter 420 through Chapter 470 because they are typically obtained earlier in project design to fulfill NEPA documentation requirements. Several are summarized in Section 520.09 through Section 520.12 because they may be needed later in project design: Section 7 Consultation, Section 106 Concurrency, Section 6(f) Approval, and Wild and Scenic Rivers Review.

Permit – A document required by law that authorizes a specific type of activity under certain conditions.

General Permit – Issued by a federal or state agency to cover a certain type of activity in a certain geographic area (nationwide, regional or statewide). For most general permits, WSDOT must submit a "Notice of Intent" (NOI) to request coverage under a general permit for a particular activity; the agency may approve or disapprove coverage.

Nationwide Permit – A type of General Permit issued by the Corps for either Section 404 or Section 10 permits.

Programmatic Permit – A General Permit issued to cover a certain type of program such as bridge and ferry terminal washing/cleaning, culvert maintenance, or use of insecticides for mosquito control. See Section 540.08 and Section 540.15.

Individual Permit – Issued to WSDOT for a particular activity or project that is not covered by a General Permit; usually needed infrequently for more complex or extensive projects.

Corps permits – The U.S. Army Corps of Engineers issues two major permits: the Clean Water Act Section 404 permit for discharge of dredge and fill material into U.S. waters, and the Rivers and Harbors Act Section 10 permit for work in navigable waters. They are commonly referred to in tandem because the same procedures apply to both and they are often issued as a combined permit. WSDOT usually can obtain coverage under a General Permit, issued nationwide for common activities having minimal impact, and occasionally must obtain an Individual Permit for a project having significant impacts. See Section 520.02 and Section 520.03.

Section 401 Permit - Permit issued by Ecology under Section 401 of the Clean Water Act, usually associated with a Corps Nationwide or Individual Section 404 permit.

Section 402 or NPDES Permits – Both terms refer to permits issued by Ecology under Section 402 of the Clean Water Act, which establishes the National Pollutant Discharge Elimination System to regulate the discharge of pollutants into surface water. Ecology has been delegated by the USEPA to administer the program in Washington and does so in conjunction with its State Waste Discharge Permit program. NPDES permits typically place limits on the quantity and concentration of pollutants that may be discharged. To ensure compliance with these pollutant concentration limits, permits require treatment or impose other operational conditions. In most cases, permits are issued for five years. Major WSDOT construction projects may require an Individual NPDES permit; most WSDOT projects can be covered by a General permit. See Section 540.04 through Section 540.08.

Project Permit – Issued to WSDOT for of a new construction or major maintenance project.

Operating Permit – Issued to WSDOT to operate a water system, water treatment system, or other facility.

License – Issued to an individual, for example a WSDOT maintenance employee who sprays insecticides or herbicides or operates a rest area water system. WSDOT contractors must obtain their own licenses for such activities.

(2) Other Permitting Terms

Condition or Provision – Requirement attached to a permit specifying, usually in some detail, the terms under which the permitted activity may be conducted; for example, use of best management practices, seasonal work windows, and notification requirements.

Federal Nexus – When the federal government is connected to a project either by owning land within the project limits, providing project funding, or by requiring a federal permit, approval, or concurrence.

Indirect Application – As used in WSDOT's Programmatic NPDES Permit for aquatic nuisance plant and algae control, means application of glyphosate to emergent vegetation for control of nuisance or noxious vegetation along public highways or in constructed or mitigated wetlands containing wetted surface at the time of the application, or which will contain wetted surfaces during the life of the active component of the herbicide.

Isolated Wetland – A wetland not within the jurisdiction of the U.S. Army Corps of Engineers as defined in the Clean Water Act Section 404. Ecology regulates these wetlands by pre-approving Administrative Orders.

500.07 Exhibits

None.

Table 500-1. Environmental Permits and Approvals – Environmental Permitting and PS&E Phase

Note: Abbreviations are listed at the end of this table.

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
FEDERAL PERMIT	S AND APPROVALS			
Endangered Species Act (ESA)	NOAA Fisheries USFWS	Activities with a federal nexus (i.e. upon federal lands, federally funded, or requiring federal permits or approvals) trigger ESA procedural and documentation requirements.	431, 436, 437, 520.02, 520.09, 710.04	16 USC 1531-1543
Wild and Scenic Rivers	FHWA and Affected Agency	No specific permits are required for projects in wild and/or scenic river corridors, but water quality permits listed in Section 431.06 may apply.	453, 520.12	16 USC 1271
Land and Water Conservation Fund Act - Section 6(f)	FHWA and Affected Agency (WSDOT)	Use of lands purchased with LWCFA funds triggers Section 6(f) procedural and documentation requirement. In Washington LWCFA funds are distributed by the Interagency Committee for Outdoor Recreation.	455, 520.11	LWCFA
Historic Preservation Act - Section 106	OAHP/SHPO	Potential impacts to historic or archaeological properties trigger Section 106 procedural and documentation requirements.	411.12, 456, 520.10	16 USC 470, Sec.106, 36 CFR 800, RCW 43.51.750
Clean Water Act - Section 404 Individual and Nationwide Permits	Corps, USEPA, USCG	Discharging, dredging, or placing fill material within waters of the US, drainage channels with a direct connection to surface waters, or adjacent wetlands.	431, 432, 437, 452, 453, 520.02, 620.04, 710.04	CWA Sec 404, 33 USC 1344, 33 CFR 330.5 & 330.6
Rivers and Harbors Act - Section 10	Corps	Obstruction, alteration, or improvement of any navigable water (e.g., rechanneling, piers, wharves, dolphins, bulkheads, buoys).	431, 432, 452, 520.03, 710.04	33 CFR 322, 33 CFR 403
General Bridge Act (Rivers and Harbors Act - Section 9)	USCG	Bridges and causeways in navigable waters, including all tidally-influenced streams used by boats over 21 feet in length.	431, 432, 452, 453, 520.04	33 USC Sec. 9, 33 USC 11, 33 CFR 114 & 115, FHWA Sec 123(b)
Archaeological Resources Protection Permit	Tribes Federal landowners, e.g. BLM, Corps, NPS	Excavation or removal of archaeological resources from tribal or federal land.	456, 520.05	43 CFR 7.6 – 7.11
Authorization for Use of Federal Land	USFS BLM	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on federal lands.	520.13, 620.02, 810.06	36 CFR 251, 43 USC 1761-1771, 43 CFR Parts 2800 and 2880
Airport/Highway Clearance	FAA (Federal)	Airspace intrusion by a highway facility (i.e. proposed construction in the vicinity of public use or military airports) may require FAA notification.	460, 520.13	FHPM 6-1-1-2, FAA Regs. p.77

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
STATE PERMITS A	ND APPROVALS			
Clean Water Act - Section 401 Water Quality Certification	Ecology USEPA (federal and tribal lands) Puyallup and Chehalis	Activity requiring a federal permit/license for discharge into navigable waters.	431, 432, 437, 452, 453, 540.02	CWA Sec 401, RCW 90.48.260, WAC 173-225
Coastal Zone Management Certificate	Ecology	Applicants for federal permits/licenses are required to certify that the activity will comply with the state's Coastal Zone Management program (Shoreline Management Act).	431, 432, 437, 452, 540.03, 710.04	CZMA Sec 6217, 16 USC 1451 et seq., 15 CFR 923-930, RCW 90.58
Clean Water Act - Section 402 NPDES Permits	Ecology	Discharge of pollutants into state waters, including wetlands and groundwater. Municipal Stormwater Discharge, Industrial Stormwater, Construction Stormwater, or Sand/Gravel permits may be required, depending on the activity.	See below.	See below.
NPDES Construction Stormwater Permit (General and Individual)	Ecology	All soil disturbing activities where construction activity will disturb one or more acres and will result in discharge of stormwater to a receiving water, and/or storm drains that discharge to a receiving water. Also required if detention facilities will be constructed to retain stormwater on site.	431, 433, 540.04, 620.04, 710.04	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Municipal Stormwater Permit (General)	Ecology	If construction activities and/or long-term operation and maintenance of its facilities result in stormwater discharge to a municipal separate storm sewer system.	431, 433, 540.05	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Sand and Gravel Permit (General and Individual)	Ecology	Activities involving the following SIC codes: 1442 Construction Sand and Gravel 2951 Asphalt Paving Mixtures and Blocks 3273 Ready-Mixed Concrete	431, 433, 540.06	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Industrial Stormwater Permit (General and Individual)	Ecology	If stormwater from WSDOT's facility does not discharge to ground and/or to a combined storm/sanitary sewer.	431, 433, 540.07	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
Other NPDES Permits (Programmatic) – Routine WSDOT Programs	Ecology	Washing and painting of bridges and ferry terminals, nuisance aquatic plant and algae control, noxious aquatic plant control, aquatic mosquito control.	431, 433, 540.08	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
State Waste Discharge_Permit (SWDP)	Ecology	Discharge or disposal of municipal and industrial wastewater into groundwater, or discharge industrial wastewater to an NPDES-permitted wastewater treatment plant.	431, 433 540.12	RCW 90.48, WAC 173-226
Isolated Wetlands Administrative Order	Ecology	Activity that may cause pollution, including discharge of fill or other alteration of the physical, chemical, or biological properties of isolated wetlands.	437, 540.13	RCW 90.48
Underground Injection Control	Ecology	Injection well that may contaminate drinking water.	433 540.14	40 CFR 144, RCW 43-21A.44, WAC 173-218
Hydraulic Project Approval	WDFW	Projects that will use, divert, obstruct, or change the natural flow or bed of any state waters (e.g., culvert work, realignment, bridge replacement).	431, 432, 436, 447, 452, 453, 540.15, 620.05, 710.04	RCW 77.55.100, WAC 220-110
Fish Habitat Enhancement Project Application	WDFW	Streamlined process for projects designed to enhance fish habitat, application accompanies Hydraulic Project Approval.	436, 540.15	See above.
Aquatic Lands Use Authorization	WDNR Harbor Line Commission	Rights-of-way or fills on, over, or across beds of navigable waters. If waters are part of harbor area, easements may also needed from harbor line commission.	436, 437, 540.16 710.04	RCW 79.90, WAC 332-30, RCW 47.12.026
Easement on Public Land	WDNR	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on state-owned land.	455, 540.17 620.02, 810.06	RCW 79.36
Forest Practices Application	WDNR	Road construction, pits, pesticide use, and other specified activities on public or private forest land (i.e., land capable of supporting merchantable timber).	455, 540.18	RCW 76.09, WAC 222
Surface Mining Reclamation Permit	WDNR	Permit with approved reclamation plan required for surface mining (pit and quarry sites) if more than 3 acres are disturbed at one time or pit walls are more than 30 feet high and steeper than 1:1.	420, 455, 540.19 620.02	RCW 78.44
Survey Monument Removal	WDNR	Temporary removal or destruction and replacement of a survey monument.	451, 540.20	RCW 58-24, WAC 332-120
On-Site Sewage System	DOH Ecology Local health authorities	Construction/modification of domestic/industrial wastewater facilities (e.g., sewer relocation, rest area construction). Systems with design flow capacity >14500 gpd are regulated by Ecology. Systems with design flow capacity of 3,500-14,500 gpd are regulated by DOH. Systems with design flow capacity of less than 3,500 gpd are regulated by local health authorities.	431, 432, 433 540.12 (Ecology) 540.21 (DOH) 550.10 (Local)	RCW 90.48.110, WAC 246-272, WAC 173-240
Archaeological Excavation and Removal Permit	OAHP	Digging, excavating, altering, defacing, or removing archaeological objects or sites; historic archaeological resources; or native Indian graves, cairns, or painted or glyptic records.	456, 540.22	

Requirement Responsible Agency		Conditions Requiring	Manual Chapter/Section	Statutory Authority
Air Quality Permit	Ecology, Clean Air Agencies, fire protection agencies	Permit allows temporary air pollution above allowed levels. Includes land clearing burns, demolition of structures containing asbestos, and operation of portable asphalt batching equipment, rock rushers, Portland cement plants. Permit may limit the type, size, or timing of temporary pollution.	425, 540.23	RCW 70.94
RCRA Hazardous Waste Tracking Form	Ecology	A WAD tracking number from Ecology is required for transport, storage, transport, or disposal of dangerous waste.	447, 540.24, 710.04	WAC 173-303
RCRA Dangerous Waste Permit	Ecology	Facilities that store, treat, and/or dispose of dangerous waste.	447, 540.24	RCRA
Underground Storage Tank Notification	Ecology	Installation or removal of an underground storage tank; requires notification to Ecology.	447, 540.24	RCRA
MTCA Hazardous Materials Spills	Ecology	Spill or release of hazardous substance with potential to impact human health or the environment; must be reported to Ecology.	447, 540.24	MTCA
Independent Remedial Action	Ecology	Conducting an independent remedial action; report must be submitted to Ecology.	447, 540.24	MTCA
Hazardous Waste Monitoring Well	Ecology	Long term monitoring of hazardous waste movement or contamination levels; notice of intent must be submitted to Ecology.	447, 540.24	RCW 18.104, WAC 173-160, WAC 173-162, WAC 173-303
Water Right Permit	Ecology	New or changed water right may be needed for withdrawal of more than 5,000 gpd of groundwater, or for any amount of surface water; e.g. for construction of a new facility such as a rest area or maintenance facility, or for diversion of surface water to create a wetland mitigation site.	433, 540.25	RCW 18.104, 43.27A, 90.03, 90.14, 90.16, 90.44 and 90.54 WAC 173-100, 173-136, 173-150, 173-154, 173-166, 173-500 and 173-590, WAC 508-12
Public Water System Approval	DOH or local health department	Construction of a new facility such as a rest area, maintenance facility, or ferry terminal that furnishes water to two or more service connections for human consumption and domestic use, including governmental, commercial, industrial or irrigation.	433, 540.25	RCW 43.20A, WAC 246-290, WAC 246-291, WAC 246-294, 42 USC Chapter 6A, 40 CFR 141 and 143.
Dam Construction Permit	Ecology	Constructing, modifying, or repairing a dam that captures and stores at least 10 acre-feet of water or liquid waste; e.g. a highway project adjacent to a reservoir requiring modification of the embankment.	540.25	RCW 90.03.350, WAC 173-175

Requirement Responsible Agency		Conditions Requiring	Manual Chapter/Section	Statutory Authority
Reservoir Permit	Ecology	Reservoir permit is required when any dam or dike is used to store water to a depth of 10 feet or more at its deepest point, or retains 10 or more acrefeet of water. Also applies to reservoir adjacent to a stream channel, wetland or wildlife mitigation sites where an impoundment of water is proposed.	540.25	RCW 90.03.370, WAC 173-175, WAC 508-12
Temporary Exceedance of Water Quality Standards	Ecology	Shoreline or in-water work resulting in a temporary increase in turbidity associated with the disturbance of sediments within a defined mixing zone; also applies to concrete pouring.	431, 432, 447, 452, 453, 540.25	WAC 173-201A.110
Soil Boring – Notice of Intent	Ecology	All drilling activities, including geotech soil borings, monitoring/resource protection wells, and developing or decommissioning water wells.	540.25	RCW 18.104, WAC 173-160, WAC 173-162
Beaver Trapping on WSDOT Property	WDFW	Trap beavers that block culverts with their dam-building activity and threaten public safety through the flooding and erosion that follow.	540.25	
LOCAL PERMITS A	AND APPROVALS			
Shoreline Substantial Development, Conditional Use, and Variance Permits	Ecology Cities and Counties	Development, construction, and uses with a fair market value of \$5,000 and greater; any development materially interfering with public use of "shorelines" which are marine waters, water areas 20 acres and larger, streams over 20 cfsmaf, wetlands, and land within 200 ft of the shoreline.	431, 432, 437, 447, 452, 453, 550.02, 710.04	RCW 90.58, WAC 173-15 through 173-27, City and County ordinances
Floodplain Development Permit	Ecology Counties and Cities	Any structure or activity that may adversely affect the flood regime of streams within the flood zone, or land areas located below the designated 100-year floodplain elevation.	432, 550.03	RCW 86.16, WAC 173-158, City and County ordinances
Critical/Sensitive Areas Ordinances	Counties and Cities	Projects impacting areas defined as "critical" by counties and cities under the GMA, including wetlands, aquifer recharge areas, wellhead protection areas, frequently flooded areas, geographically hazardous areas, fish and wildlife habitat, and conservation areas.	420, 431, 436, 437, 451, 550.04, 710.04	RCW 90.58, RCW 36.70A, City and County ordinances
Clearing, Grading and Building Permits	Counties and Cities	Clearing and grading of land for development with impacts outside WSDOT right of way; includes connecting streets, frontage roads, etc. Construction of any building for human habitation; includes maintenance facilities.	420, 451, 454, 460, 550.05, 710.04	RCW 36.21.080, RCW 36.70, RCW 36.70A, RCW 19.27, WAC 51-50, City and County ordinances

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
Land Use Permit	Counties and Cities	Required land use permit examples are conditional use, unclassified use permit, or variance.	550.06	City and County ordinances
Noise Variance	Counties and Cities	Construction and maintenance activities during nighttime hours may require a variance from local noise ordinances. Daytime noise from construction is usually exempt.	446, 550.07	RCW 70.107, WAC 173-60, WAC 173-62
Detour and Haul Road Agreements	Counties and Cities	Use of city streets or county roads for the purpose of detouring traffic or hauling certain materials associated with a highway improvement project.	550.10	City and County ordinances
On-site Sewage System under 3,500 GPD	Local health authorities	Discharge of on-site sewage, less than 3,500 gpd.	550.10	

Abbreviations:

	BLM	Bureau of Land Management (Federal)		
	CFR	Code of Federal Regulations	<u>NOAA</u>	National Oceanic and Atmospheric Administration
	<u>cfsmaf</u>	Cubic feet per second mean annual flow	NPDES	National Pollutant Discharge Elimination System
ī	Corps	U.S. Army Corps of Engineers	NPS	National Park Service
	CWA	Clean Water Act	NRCS	Natural Resources Conservation Service (U.S. Dept. of Agriculture)
	CZMA	Coastal Zone Management Act (Federal)	OAHP	Office of Archaeology and Historic Preservation (State)
	DOH	Washington Department of Health	RCRA	Resource Conservation and Recovery Act
	DSHS	Washington Dept. of Social and Health Services	RCW	Revised Code of Washington
	Ecology	Washington State Department of Ecology	ROW	Right-of-Way
	EO	Executive Order	SDWA	Safe Drinking Water Act (Federal)
	ESA	Endangered Species Act (Federal)	SEPA	State Environmental Policy Act
	FAA	Federal Aviation Administration	SHPO	State Historic Preservation Officer
	FACA	Federal Action Community Act	SIC	Standard Industrial Code
	FHWA	Federal Highway Administration	SMA	Shoreline Management Act (State)
	FRA	Federal Railroad Administration	SWDP	State Waste Discharge Permit
	FWCA	Fish and Wildlife Coordination Act (Federal)	USC	United States Code
	<u>gpd</u>	Gallons per day	USCG	United States Coast Guard
1	WPCA	Water Pollution Control Act (Federal)	USEPA	United States Environmental Protection Agency
	GMA	Growth Management Act (State)	USFS	United States Forest Service
	HPA	Hydraulic Project Approval	USFWS	United States Fish & Wildlife Service (Dept. of Interior)
	JARPA	Joint Aquatic Resources Permit Application	WAC	Washington Administration Code
	LWCFA	Land and Water Conservation Fund Act (Federal)	WAD	Dangerous Waste Identification Number
	MTCA	Model Toxics Control Act	WDFW	Washington State Department of Fish and Wildlife
'	NEPA	National Environmental Policy Act	WDNR	Washington State Department of Natural Resources
	NMFS	National Marine Fisheries Service (Dept. of Commerce)		•

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Key to Icons



Web site.*

510.01 Introduction

The environmental permitting process requires cooperation among many WSDOT employees – project engineers, designers, environmental staff, right-of-way personnel, construction managers, and maintenance staff – who must coordinate scheduling, budgets, roles and responsibilities, and staff resources. Furthermore, the process uses technical jargon, acronyms, and legal complexities that may hinder understanding by infrequent or non-technical users of the EPM.

To improve communication and understanding, this chapter presents general information about the environmental permitting process at WSDOT. It gives short answers to frequently asked questions (FAQs), as well as more detailed information on how WSDOT staff can streamline their permitting work, typical data and documentation requirements, and roles and responsibilities of various permitting agencies and WSDOT staff.

510.02 Frequently Asked Questions

The issue of permitting is often misunderstood because it is complex and dynamic. Below are answers to frequently asked questions that will help the EPM user understand permitting issues. For the sake of simplicity, brief answers are given to the FAQs, with reference to more detailed information in other sections of the EPM.

(1) What is the difference between a "permit" and an "approval"?

A "permit" is a document required by law that authorizes a specific type of activity under certain conditions. An example is a Section 404 permit issued by the U.S. Army Corps of Engineers (Corps).

As used in the EPM, "approval" means any document or process other than a permit that needs a signature by someone in authority at an agency having jurisdiction or control over an activity. An approval may also include documentation, certification, concurrence, easement, or license. For example, Section 106 of the Historic Preservation Act, requires no permit, but does require concurrence by the State Historic Preservation Office (SHPO).

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/.

(2) What is a "federal nexus" and why is it important in permitting?

The term "federal nexus" applies when a WSDOT project involves federal funding, federal permit or approval, use of federal lands, or a federal program. The existence of a federal nexus often triggers the need for federal approvals under certain statutes, including NEPA, Section 106 of the Historic Preservation Act, and the Endangered Species Act.

(3) Where can I find laws and rules on environmental permits?

Federal statutes are collected in the United States Code (USC) and federal rules are assembled in the Code of Federal Regulations (CFR). A user-friendly web site for accessing these federal statutes and regulations is:

http://www.law.cornell.edu/

State laws are contained in the Revised Code of Washington (RCW), and state rules affecting state agency actions are in the Washington Administrative Code (WAC). The official web site, maintained by the Office of the Code Reviser, has an easily accessed index for both statutes and regulations at:

http://www1.leg.wa.gov/CodeReviser/

Local laws and rules are on the web sites for many individual cities and counties. They are also collected by the Municipal Research and Services Center of Washington and can be accessed online at:

http://www.mrsc.org/

(4) What are the different types of permits?

There are two basic types of permits: general and individual. General permits cover a certain type of activity within a certain geographical area, such as a region, state or the entire nation. General permits often have pre-determined conditions that apply automatically to project actions. Examples of general permits are nationwide Section 404 permits issued by the Corps and programmatic Hydraulic Project Approvals issued by WDFW. For most general permits, WSDOT must submit a "Notice of Intent" (NOI) to request coverage under a general permit for a particular activity. The regulating agency may approve or disapprove coverage. Individual permits are issued for a specific activity based on the complexity or circumstances of that project. Other types of permits and approvals are listed in the glossary, Section 500.06.

(5) Besides statutes and regulations, are there other environmental requirements that apply to WSDOT projects?

Yes. WSDOT has made a number of environmental commitments in interagency agreements such as Memoranda of Understanding, Memoranda of Agreement and Implementing Agreements. The Appendix lists the agreements with a summary of environmental commitments that require compliance at each stage of WSDOT's Transportation Decision-Making Process.

WSDOT has also adopted internal policies and rules that make environmental commitments. Policy guidance from FHWA and other federal agencies also is relevant to permitting. See **Chapter 420** through **Chapter 480** for details.

(6) How are all the environmental commitments tracked over the life of a project?

Commitments are made during project scoping and programming, NEPA/SEPA documentation, design and environmental review, permitting, and PS&E. <u>In standing with WSDOT's Environmental Management System, the ESO Compliance Branch built the on-line Commitment Tracking System, to organize commitments by project and align them with contract documents to verify methods of implementation. Additional systems to ensure compliance with environmental laws include the Headquarters Water Quality Erosion and Sediment Control Program, the Regional Road Maintenance Program (RRMP), and Washington State Ferries' Safety Management System.</u>

(7) What environmental permits and approvals are typically required for WSDOT projects? Chapter 520 to Chapter 550 provide guidance on 45 permits or approvals that may be needed for WSDOT projects. Some are commonly required, while others are used infrequently. Appendix F is a comprehensive list of all environmental permits that may be required for WSDOT projects. Table 400-1 includes those most often initiated during environmental review; these are discussed in detail in Part 4. Table 500-1 includes permits and approvals obtained prior to a finalized PS&E; these are discussed in detail in Part 5. Table 240-2 through Table 240-6 in the Design Manual is a matrix indicating major permits likely to be needed for each WSDOT project type.

(8) When should I begin applying for permits?

The sooner the better! For projects with a federal connection (nexus), much of the documentation needed for permit approval is prepared as part of the NEPA/SEPA environmental review process. Early in project design, permit requirements are often discussed and negotiated with regulating agencies. Preparation of these permits may begin during design and are usually completed before the finalized PS&E phase.

(9) How much time should I allow for obtaining permits?

Many permits have statutory or regulatory time limits for agencies' actions. However, because there are so many factors and potential causes of delay, the actual time required often differs from the regulatory limits. Processing may take significantly less time, or may extend months beyond regulatory timelines if required information is incomplete. See Section 510.03 for details.

(10) How can I keep track of what to do when?

Since a project schedule can be easily affected by permitting issues, creating and maintaining a work plan and timeline is essential. Having a visual image of the permitting work flow and how it relates with the design process can be helpful. See Section 510.03 for ideas.

(11) How can I save time in preparing a permit?

Two key ideas are to start early in the planning process, and make sure the application includes all the required information. See Section 510.03 for other tips.

(12) What is JARPA and how can it help save time?

The Joint Aquatic Resources Permit Application (JARPA) process has been developed by permitting agencies to allow applicants in Washington to batch permit applications and trigger concurrent review periods. Using the JARPA allows applicants to send information required for several permits to the responsible agencies at the same time. See Section 510.03 for details.

An electronic version of the JARPA has been developed by Ecology. Information concerning the use of this tool and the form is available for use at this direct link:

http://www.one-stop-jarpa.org/

(13) How else can I coordinate applications for multiple permits?

Other ideas include scheduling pre-application meetings with several agencies, coordinating public review for several permits, and convening an interdisciplinary team such as the Multiple Agency Permitting (MAP), team to review and negotiate mitigation compensation. See Section 510.03 for details.

(14) Who should I contact if I have questions on a specific permit?

Always seek input from the WSDOT environmental staff in the regional offices first. Exceptions are specialty areas, identified in permit descriptions (Chapter 520 through Chapter 550). For WSDOT contact information, see Appendix G. For other contact information see agency web sites, listed in Appendix C. Ecology's Permit Assistance Center (FAQ #15) can help track down contacts for obscure or infrequently used permits.

(15) Where else can I go for information about permitting?

The two best sources for overall information and guidance to specific contacts are WSDOT's Environmental Services Office (ESO) and Ecology's Permit Assistance Center. After the regional environmental staff, the ESO is the first stop for permitting information specific to WSDOT projects. Refer to the web site at:



Ecology's One-Stop Service Center provides information and contacts for environmental permits issued by federal, state, and local authorities. Regional staff in Yakima, Spokane, Bellevue and Lacey coordinate permit applications for larger, more complex projects. They work with applicants, agencies and regulatory authorities to develop permitting plans that meet environmental and land-use requirements as well as applicants' timing needs. See Ecology's Environmental Permitting web site:

http://www.ecy.wa.gov/programs/sea/pac/index.html

(16) What do I do when agency requirements differ?

Agency specifications for drawings and maps often differ, so it may be necessary to produce them in more than one size. For example, tabloid sheets (11 x 17-inch) are commonly accepted for most environmental reports and NEPA/SEPA documents. However, the Corps requires letter size sheets for all drawings because they routinely distribute public notices to a sizeable mailing list. Agency

staff who conduct much of their project review in the field tend to prefer larger formats than the letter (8½ x 11-inch) and legal (8½ x 14-inch) page sizes commonly used for office filing and distribution of public notices. WDFW sometimes prefers formats as large as 48 x 48-inch. See Section 510.04 for more on data requirements.

(17) Can a permit be extended if construction takes longer than expected?

Permit extensions can usually be granted upon request. Some agencies may require submitting a permit extension request form and issuing a public notice. As a professional courtesy, requests for permit extensions are usually submitted at least one month before the permit expires. Contact the agency for details of permit extension requirements before a crisis occurs.

(18) How do I handle permits in an emergency?

When unanticipated events pose an immediate threat to the integrity of the highway system and the safety of the traveling public, the Legislature has authorized expedited procedure so WSDOT can respond promptly. These procedures are detailed in WSDOT's *Emergency Procedures Manual* (M 3014). See Exhibit 510-1 for an Attorney General's office opinion on Emergency Protection and Restoration of Highways (April 19, 2002).

510.03 Streamlining the Permitting Process

This section includes suggestions to organize the permitting process, with examples of permitting timelines and schedules, time-saving tips, and using JARPA and other opportunities to coordinate work on multiple permits.

(1) Typical Permitting Timelines

Figure 510-1 illustrates the statutory permit timeline for several commonly needed permits, showing the basic steps and timelines set forth in regulations. By contrast, **Figure 510-2**, shows a "typical" timeline based on anecdotal information about how long it actually takes to obtain permits given real world opportunities and limitations. Both figures illustrate that a critical path that must be managed to keep multiple permits on track.

(2) Scheduling the Permitting Work

Since a project can be easily affected by permitting issues, creating and maintaining a work plan and timeline is essential. Having a visual image of the permitting work flow and how it relates to the design process can be helpful.

Figure 500-2 gives a broad example of how this relationship can be modeled for a mainline channelization project requiring minor amounts of new right-of-way.

Figure 510-3 shows the relationship in more detail, illustrating the level of effort over time during design and PS&E. Because roadside ditches are often at the edge of the right-of-way, the Talent decision has increased the potential for impacts on wetlands and surface waters under Corps jurisdiction. Ideally, the amount of fill is minor and coverage can be obtained under a General (Nationwide) Section 404 Permit. The wetland mitigation plan, required by the permit, may affect stormwater facilities and other design elements. Because stormwater impacts are associated with dredging and filling, an NPDES stormwater permit is needed. Normally, coverage can be obtained under the

General Construction Stormwater Permit. A county or city noise permit may be needed because of the potential for nighttime work.

Another useful time management tool is a permitting work plan that provides useful information for each permit, such as agency contact information, submittal requirements, internal and agency review dates, fees and current status. This type of work plan is illustrated in **Exhibit 510-2** for a new Park and Ride lot.

(3) Time-saving Tips from Ecology

Ecology's regulatory assistance center has prepared the following tips to help applicants understand, plan for and navigate the permitting process:

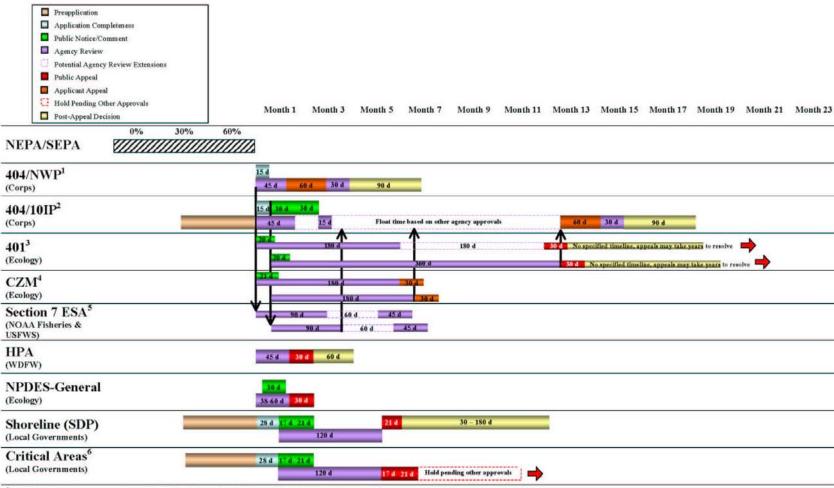
Know the players. Find out what agencies and permits may be involved, time frames, costs, and information needed for permit approval.

Act early. Contact agency staff early in the planning phase, before making a large investment in property, time, or project design. If enough design detail can be provided to the agencies, considerable time can be saved in the long run by identifying the crucial permits that will require a long lead time.

Fully explain current and future plans. An interagency meeting can provide the opportunity to assist regulating agency staff identify required permits and development options, and allow them to work cooperatively with a common understanding of the project.

Make sure the application is complete. Submitting incomplete information will increase processing time. Obtain information from the design team as early as possible rather than guessing or omitting information. Include a complete and accurate project description with the application, and provide adequate design information for the regulating agencies.

Figure 510-1: Statutory Permit Timeline



Regulation states that agency decision will be within 45 days of receipt of complete application, unless more information is needed.

Regulation states that agency decision will be within 60 days of receipt of complete application, unless the comment period is extended or more information is needed. Public comment period extension does not use agency review time (i.e., 30 day suspension).

Regulation states that agency review schedule will be tied to federal permit application schedule. Regulation allows one year for permit review, but an agreement between the Corps and Ecology requires Ecology to process NWP within six months. Inaction on a NWP beyond six months is considered an approval. Public notice required only for individual 401 certification.

^{*}Regulation states that agency concurrence or objection to federal consistency determination within 180 days if federal approval needed of federal funding used.

Regulation states that consultation process should conclude within 90 days unless applicant has consented to 60-day extension. Consultation period can be further extended with applicant consent. (Services have additional 45 days for preparation of Biological Opinion)

Local jurisdiction can approve permit upon close of appeal process, but can hold issuance until other related approvals (e.g., HPA, Corps, NPDES) are received.

Figure 510-2: Typical Permit Timeline

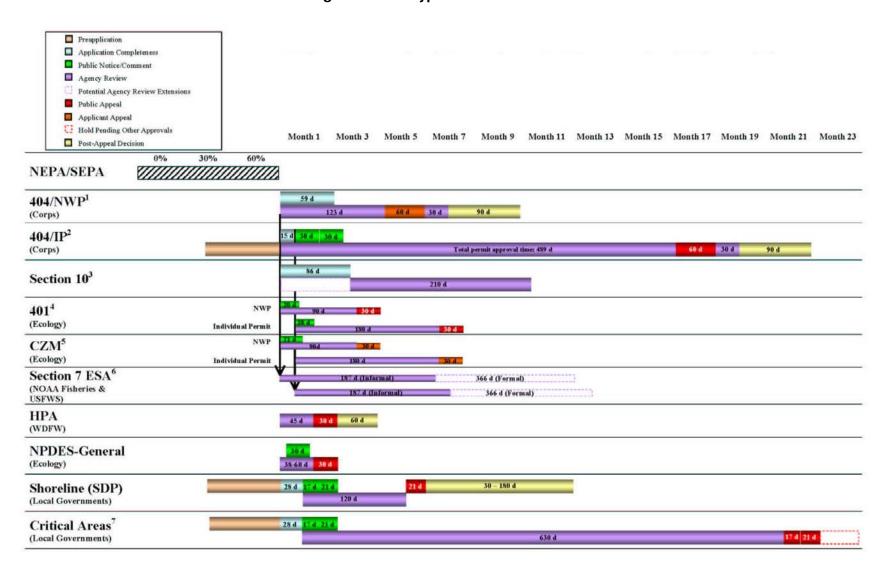
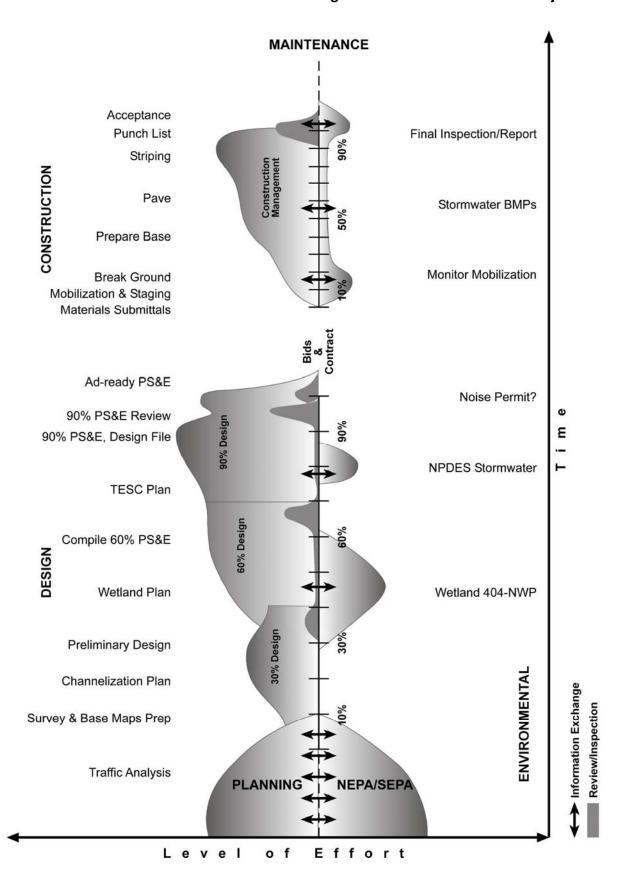


Figure 510-3: Level of Effort Required during Design, Construction, and Environmental Review and Permitting – Mainline Channelization Project



Portray how the project will affect the local community. Meet with local jurisdictions and neighboring property owners early in the process. Aligning the project with local interests enhances acceptance of the project and can reduce processing time for some permits by avoiding lengthy debate and appeals.

Be proactive. Know the rules and periodically check the status of the application. Responding promptly to requests for information will keep the application moving. Follow-up meetings and field visits are helpful to clarify any issues that arise. Carefully read all notices, staff reports and correspondence, and ask questions when in doubt.

Be flexible. Agencies may ask you to consider changes to the project to reduce environmental impacts. You may be able to reduce costly mitigation or delays if you are willing and able to consider alternatives that respond to agency or public concerns.

Walk in the other person's shoes. The applicant and permitting agency may not speak the same language or have the same goals. It helps to understand the regulating agencies' mission, priorities and intended outcome. Recognize that the applicant and permitting agency will have an ongoing relationship after the permit is approved. Treating each other professionally and courteously can go a long way toward moving the project forward smoothly, and building trust.

(4) Submitting applications with "JARPA"

The Joint Aquatic Resources Permit Application (JARPA) process has been developed by permitting agencies to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods. It is used as a permit application by the U.S. Army Corps of Engineers, U.S. Coast Guard, Washington State Department of Fish and Wildlife, Washington State Department of Ecology, Washington State Department of Natural Resources, and 24 counties and 59 cities (as of November 2003). Table 510-2 lists the permits included in JARPA with reference to detailed guidance later in this chapter.

Table 510-2: Permits Included in JARPA

Jurisdiction	Permit/Approval	EPM Section
U.S. Army Corps of Engineers (Corps)	Section 404 Permits	520.02
U.S. Army Corps of Engineers (Corps)	Section 10 Permits	520.03
U.S. Coast Guard (USCG)	Section 9 Permit	520.04
WA State Department of Ecology (Ecology)	401 Water Quality Certification (including applications for preapproved Administrative Order related to isolated wetlands)	540.02
WA State Department of Ecology (Ecology)	Coastal Zone Management Certification (not normally included in JARPA but used by WSDOT to obtain Ecology concurrence)	540.03
WA State Department of Fish and Wildlife (WDFW)	Hydraulic Permit Approvals (including application for streamlined process for Fish Habitat Enhancement Projects)	540.15
WA State Department of Natural Resources (WDNR)	Aquatic Lands Use Authorization Notification	540.16
Cities and Counties	Shoreline Permits (including Substantial Development Permits, Conditional Use Permits, Variances, Exemptions, and Revisions);	550.02
Cities and Counties	Floodplain Development Permits	550.03
Cities and Counties	Critical Areas Ordinance Compliance	550.04

Use of the JARPA allows applicants to send information required for several permits to the responsible agencies at the same time. The JARPA form includes

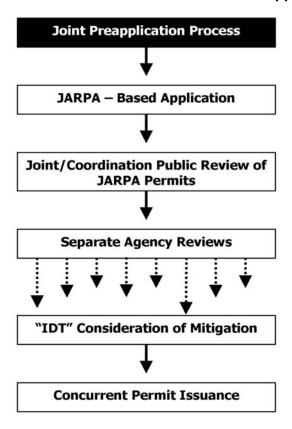
instructions on specific information required for each permit. See the electronic version of the JARPA at:

http://www.one-stop-jarpa.org/

(5) Other Opportunities to Coordinate Applications for Multiple Permits

Besides JARPA, several other opportunities to streamline the permitting process are suggested below and illustrated in Figure 510-4.

Figure 510-4: Potential Coordinated/Concurrent Review Opportunities



- Schedule pre-application meetings with multiple agencies. Only a few permits require formal pre-application (e.g. Section 404 Individual Permits, Shoreline Permits, HPA). However, convening all permitting agencies for a given project allows everyone to receive the same briefing, and discuss permitting requirements and opportunities for coordination. This initial investment can pay off by reducing the time agencies need to review the project. Make sure these agency discussions don't limit opportunities for public access to the process.
- Coordinate public review for several permits. Not all permits require separate public notice, review and comment. For example, Hydraulic Project Approvals (HPAs) are issued without public review. Local Shoreline and Critical Areas Ordinance reviews are usually done jointly. The Growth Management Act allows applicants to request one public hearing for multiple permits. A coordinated public comment process is also usually used for USCG Section 9 bridge permits, Section 401 Water Quality Certifications, and Individual Section 404 and NPDES permits.

For the others, a coordinated and/or joint public review process may be possible. This might resemble the joint NEPA/SEPA public review process, where a combined public notice meets both federal and state requirements, joint public review forums are held, and comments are compiled for analysis by each permitting agency. However, respect for an agency' procedural requirements must be observed.

• Convene an interdisciplinary team to review and negotiate mitigation compensation proposals that may be required. Most agencies involved in a particular project need to consider mitigation options, understand other agency's mitigation requirements, and feel comfortable with WSDOT's mitigation plans. To facilitate joint review and negotiation of mitigation measures, an interdisciplinary team of agency staff can be convened during the agency review process. Results can then be incorporated into each agency's permit conditions.

510.04 Data and Documentation Requirements

Most permit applications require basic project information, drawings and maps, and sometimes attachment of additional reports or plans. See "For More Information" on each permit in **Chapter 520** through **Chapter 550**. Requirements for each permit are usually found on agency web sites or in instructions accompanying the permit application.

Basic information. Exhibit 510-3 shows the basic project data required for several aquatic resource permit applications to illustrate the kind of information needed.

Project drawings and maps. Agencies differ widely in their requirements. Most agencies that require drawings want a vicinity map and both plan and profile (cross-section) views of the proposed construction. Each permit specifies an optimal level of detail, usually driven by the agency's specific regulatory responsibility. For aquatic permits, most agencies want the project footprint and structures in or near water displayed relative to key features such as property lines, ordinary high water mark, and delineated wetland boundaries. An agency may consider an application incomplete if the requested items are not shown on plan sheets. Agencies usually do not begin reviewing the application until it is deemed complete.

Technical reports and plans. Wetland reports and ESA Biological Assessments or Biological Evaluations are the reports most often required as part of permit applications. Others include hydrology reports (for HPAs), geotechnical studies, and Environmental Site Audits.

Temporary Erosion and Sediment Control (TESC) Plans, Wetland Mitigation Plans, and Vegetation Plans are the plans most often required. A Stormwater Pollution Prevention Plan (SWPPP), including the TESC Plan, BMPs, and stormwater site plan, is needed by Ecology for developing conditions for Section 401 Water Quality certifications and for the rare project that requires a NPDES individual stormwater permit. The NPDES stormwater permit application does not specifically require attachment of a SWPPP, only that one will be prepared.

510.05 Permitting Roles and Responsibilities

This section highlights the statutory responsibilities of various permitting agencies and the responsibilities of WSDOT offices for permitting.

(1) Permitting agencies

Each federal and state agency and local jurisdiction has statutory responsibility for certain aspects of environmental protection and for regulating activities to prevent or mitigate environmental impacts. Where these responsibilities overlap, permits from several agencies may be needed for any given project, and agencies attempt to coordinate permitting procedures to avoid unnecessary duplication.

Figure 510-5 illustrates the overlap in responsibility for some of the permits that may be needed in a typical watershed.

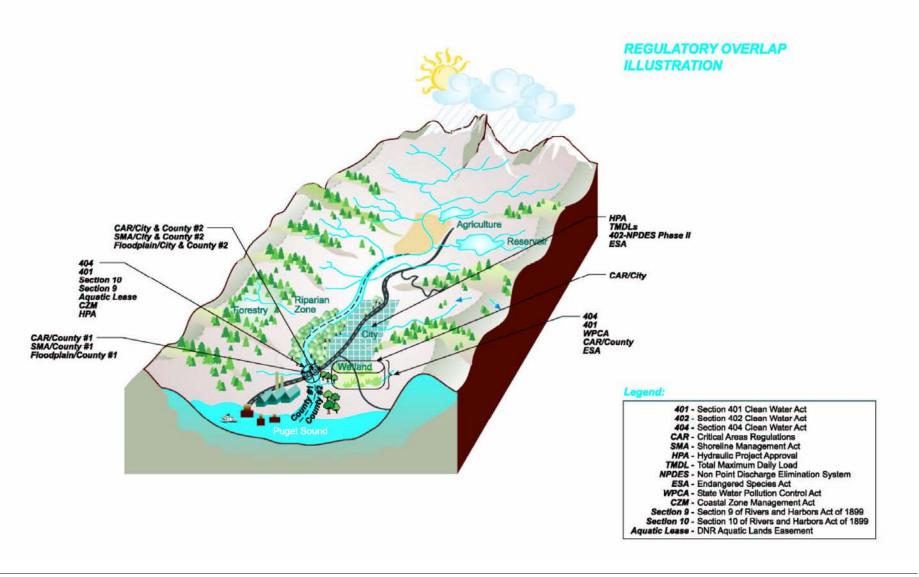
Below are the general responsibilities of some of the permitting agencies most relevant to WSDOT:

- Water quality. The U.S. Army Corps of Engineers and USEPA are responsible for protecting water quality in "waters of the U.S." Regulatory authority is delegated to Ecology for some activities.
- Endangered species. NOAA Fisheries and U.S. Forest Service (USFS)
 have primary responsibility. State agencies including Ecology and WDFW
 also have responsibility.
- Aquatic resources. WDNR is responsible for land underlying state waters; WDFW is responsible for the fish and other aquatic species.
- Shorelines. Ecology oversees activities on shorelines, with permitting authority delegated to cities and counties, and certifies compliance with federal coastal zone management rules.
- Public lands. Activities on publicly owned land are regulated by the agencies having jurisdiction: the USFS and Bureau of Land Management (BLM) for federal lands, and WDNR for state lands.
- Archaeological and historical resources. Agencies having responsibility include the USFS, BLM, Bureau of Indian Affairs (BIA), tribal governments; and the SHPO.
- Hazardous materials and other toxic substances. Ecology.
- Air quality. Regional, county, or local clean air agencies and Ecology.

(2) WSDOT Roles and Responsibilities

- (a) Regional environmental offices. Regional offices coordinate applications for most environmental permits.
- (b) Environmental Services Office (ESO) specialists. Specialists at the Headquarters ESO coordinate some permits and provide backup for regional environmental staff. The Hazardous Materials. Air, Acoustics, and Energy Section in the Northwest Regional Office is as the primary source of statewide guidance for local air quality permits and noise control variances.
- (c) ESO Compliance Branch, Permitting Section.
 - Develops new programmatic NPDES and HPA permits, reports annual usage, and keeps track of permits needing periodic renewal.
 - Renewing coverage under NPDES and Section 404/Section 10 General permits.

Figure 510-5: Regulatory Jurisdictions in a Typical Watershed



- (d) **Project Manager** (may be the Project Engineer, Regional Environmental Manager, or Highways and Local Programs (H&LP) Engineer).
 - Renewing or extending coverage under NPDES and Section 404/Section 10 Individual permits and other permits obtained prior to construction.
 - Insures programmatic NPDES and HPA permit provisions are listed in project Plans/Special Provisions, record usage for annual reports.
- (e) Headquarters Maintenance and Operations Environmental.
 - Annual drinking water operating permits (Group A water systems at safety rest areas); waterworks operator certifications; wastewater plant operators certificate.
 - Bridge cleaning/washing reporting as condition of programmatic NPDES and HPA permits.
 - Vegetation management spraying of herbicides under noxious/nuisance weed programmatic NPDES and HPA permits.
 - Mosquito spraying pesticide applicator licenses.
- (f) Ferries Terminal Engineering Environmental Manager.
 - Ferry terminal cleaning/washing reporting as condition of programmatic NPDES permit.
 - Ensures programmatic NPDES and HPA permit provisions are listed in project Plans/Special Provisions, record usage for annual reports.

510.06 Exhibits

- **Exhibit 510-1** Attorney General's Office Opinion on Emergency Protection and Restoration of Highways.
- Exhibit 510-2 Sample Work Plan (Sammamish Park and Ride).
- Exhibit 510-3 Data Requirements Matrix Aquatic Resources Permits.

Attorney General's Office Opinion on Emergency Protection and Restoration of Highways



ATTORNEY GENERAL OF WASHINGTON

Transportation & Public Construction Division
PO Box 40113 • Olympia WA 98504-0113 • (360) 753-6126

MEMORANDUM

April 19. 2002

TO: Terry Simmons FROM: Bill Attridge

SUBJECT: Emergency Protection and Restoration

Highways

Unanticipated events occur that pose an immediate threat to the integrity of the highway system and the safety of the traveling public. To promptly respond, the Department is authorized by the Legislature to utilize an expedited course of action. For example, RCW 47.28.170 states in part:

- (1) Whenever the department finds that as a consequence of accident, natural disaster, or other emergency, an existing state highway is in jeopardy or is rendered impassible in one or both directions and the department further finds that prompt reconstruction, repair, or other work is needed to preserve or restore the highway for public travel, the department may obtain at least three written bids for the work without publishing a call for bids, and the secretary of transportation may award a contract forthwith to the lowest responsible bidder
- (2) Whenever the department finds it necessary to protect a highway facility from imminent danger or to perform emergency work to reopen a highway facility, the department may contract for such work on a negotiated basis not to exceed force account rates for a period not to exceed thirty working days.

Also, when the delay of the work would jeopardize a state highway or constitute a danger to the traveling public, the work may be done by state forces when the estimated cost of the work is less than \$80,000. The dollar amount has been recently increased by the Legislature to provide a more effective method to promptly react to these emergency situations. RCW 47.28.030.

An Emergency Procedures Manual has been developed by the Department. Its purpose is to establish emergency operating procedures so that Department personnel can expeditiously respond to those conditions set forth in the above referenced statutes. The first step in the procedure is to issue a Declaration of Emergency. The decision to make the Declaration lies with the Secretary of Transportation or his designees which includes the Regional Administrators. The Administrators may further delegate the authority to their respective Maintenance Superintendents. In an upcoming revision of the Manual, the authority for the delegation will extend to the Project Engineer in charge of the emergency work.

Once the Declaration is issued, the necessary effort to reconstruct, repair, or do other required work can be expedited to preserve or restore the highway facility for public use. By authorizing the Declaration, the Department may use the acceleration method to select contractors to do the emergency work pursuant to RCW 47.28.170 or use state forces pursuant to RCW 47.28.030. In addition, the Declaration places the work in an emergency mode so that the various environmental laws relating to such work apply. Thus, the Declaration immediately allows the applicable Regional Environmental Office to secure any permits or provide any notifications that may be applicable to emergency work. The environmental staff can rely upon the Declaration to ensure itself that the proposed work falls within the various definitions of the term "emergency" as found in the federal and state environmental laws. All of these definitions relate to situations where unanticipated events have occurred requiring response activities that must be taken to prevent the loss of property or injury to the public. That criteria is the same as found in RCW 47.28.170. The statute governs situations where highway work is required to protect the facility and the traveling public from the consequences of an accident, disaster or other emergency. The Declaration is issued only when the emergency conditions exist as described in RCW 47.28.170. It likewise satisfies the concept of an "emergency" as that term is used in various environmental laws that may be applicable to the proposed work.

For example, the Shoreline Management Act exempts development from the requirement for a shoreline permit where it is "emergency construction necessary to protect property from damage by the elements." RCW 90.50.030(3)(e)(iii). The shoreline regulations further define "emergency" as "an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with this chapter." WAC 173-27-040(2)(d). The Hydraulic Code allows oral authorization for work in an emergency, which is defines as "an immediate threat to life, the public, property, or of environmental degradation." RCW 77.55.100(5).

Federal environmental regulations contain similar provisions. The Corps of Engineers' section 404 regulations define an emergency as follows:

An "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.

33 CFR section 325.2 All of these environmental statutes and regulations define "emergency" in a manner that is entirely consistent with the use of the term in RCW 47.28.170. Therefore, a declaration of emergency by the region under RCW 47.28.170 is sufficient to invoke the emergency provisions under the environmental statutes. It makes no sense to find that an emergency prevents the use of the normal competitive bidding process, but that a months-long environmental application process should still apply.

The Declaration puts in place an expedited procedure to protect the highway from damage and to restore it as quickly as possible for public use. Once the Declaration has been issued by an authorized person, Department personnel may consider the proposed work as emergency in nature for purpose of selecting a contractor, using state forces, and complying with environmental laws and regulations.

JWA:jah

Sample Work Plan (Sammamish Park-and-Ride)

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date	Responsi bility	Status	Fees	Notes
Conditional Use Permit Sammamish Mark Rodriguez Senior Planner 425-836-7911	Pre-Application Meeting				DEA	No formal pre-app required. Informal meeting held on 6/17 with Mark Rodriquez and Bradford Davis, planners.		CUP review approx. 2 to 4 months. Schedule CUP filing to allow for decision before grading permit application is filed. Allows for any changes coming from the CUP.
	Base Land Use Application	12/23/2003	12/30/2003	4/15/04 (estimate)	DEA and ST	City reviewing application for completeness.	City reviewing whether ST required to pay fees.	City will accept CUP application without landowner's signature because of ST's eminent domain authority.
	CUP Supplemental Info	12/23/2003	12/30/2003		DEA			Narrative description of how project is consistent with Sammamish policies and plans.
	Development Plan Set	12/23/2003	12/30/2003		DEA/OPG			Expect 60% submittal in January 04. CUP may be conditioned to require a complete plan set submittal as part of the grading and clearing permit.
	Other Plan Sheets				DEA	Additional plans may idrainage and grading.		
	Traffic Impact Analysis	pact 12/23/2003 12/30/2003 DEA Revised traffic impact analysis submitted with CUP.		analysis	Assumptions underlying traffic impact anal submitted with Park-and-Ride SEPA changed. Revised anal. prepared for IPL submitted with CUP.			

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date	Responsi bility	Status	Fees	Notes
	Drainage Review - Raingarden Memo	12/23/2003	12/30/2003		DEA	Completed with SEPA. Check for consistency w/ Chp. 1 KCSW Design Manu Add memo for new raingarden added.		
	Sensitive Areas Affidavit	12/23/2003	12/30/2003		DEA/ST			
	SEPA Compliance	12/23/2003	12/30/2003		DEA/ST	Submit copy of DNS issued by ST.		
	KC Assessor's Map	12/23/2003			DEA			
	Mailing labels	12/23/2003	12/30/2003		DEA			
Grading and Clearing Permit Sammamish Cindy Reddekopp Permit Center 425-836-7921	Construction Plan Set at 90%	4/20/2004	5/25/2004	8/16/04 (estimate 60 days)		in Feb. and 90% to ST early March 04.	Fee, \$54 initial	Plan set includes: site plan, TESCP, grading, drainage, lighting, landscape, road, and signal plans, notes, detail sections. Assumes 60 day review.
Right-of-way Permit Sammamish Colleen Hawkins Administrative Assistant 425-836-7925	Road Construction Plan Set at 90%	4/20/2004	5/25/2004	8/16/04 (estimate 60 days)		Same schedule as grading permit.	\$400.50	Plan set includes the same plan set for the grading permit but with those plans relating to the road only.
Building Permit Sammamish	Architectural Plan for Shelters	4/20/2004	5/25/2004	8/16/04 (estimate 60 days)	DEA/ST	Requires 90% design Dimensions, elevation and colors.	s, materials,	Required for structures covering over 150 square feet. Shelters are 200 square feet. ST to provide standard drawings.

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date	Responsi bility	Status	Fees	Notes
Developer Extension Agreement Sammamish Plateau Water and Sewer Dist. Jay Regenstreif Planning Engineer 425-392-4931 ext 215	Allocation Authorization and Developer Extension Agreement	1/15/2004	5/25/2004	8/16/04 (estimate 60 days)		Depends on what plans need to be submitted as part of developer extension agreement. Estimate of water use is required and will be prepared by OPG.	To be determined.	Pre app held 11/21/03. Conflicts with water and sewer identified. SPWSD recommends combined application.
NPDES Construction General Permit Wash. Dept. of Ecology Linda Matlock Water Quality Program	Notice of Intent Form	9/1/2004		11/1/2004 (estimate 30 days)	DEA	TESCP will be developed to 90% at time NOI is submitted.	No fee.	Notice of Intent to apply for coverage filed with Ecology. Requires signature of owner. Check renewal date for 2005 construction.
Class IV General Forest Practice Approval Wash. Dept. of Natural Resources Charlotte Bath FPA Coordinator 360-825-1631	Class IV General Forest Practice Appoval, Letter of Permission from City of Sammamish	7/12/2004	8/17/2004	9/27/04 (estimate 30 days)	DEA	FPA Application to be filled out after Sammamish issues grading permit.	To be determined.	Determine if FPA can be filed after CUP is issued using letter from Sammamish.

					eral Agencies						State Agencies								
Data Item									φ'			(`	genci		
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10	7	NOAA - ESA Section 7	FWS - ESA Section 7	Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert (404ind)	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA		King County - Critical Areas	King County - Shorelines			
Applicant/Contact Information																			
Applicant (name, address, phones, email)	Χ	Χ	Χ	<u> </u>	1		Х	Χ	Χ	Χ	Χ	Χ	Χ		Χ	Χ			
Agent (if applicable - name, etc)	Χ	Χ	Χ				Χ	Χ	Χ	Χ	Χ	Χ	Χ		Χ	Χ			
Relationship of Applicant to Property	Χ	Χ	Χ					Χ	Χ	Χ			Χ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Χ			
Property Owner (if not applicant-name, etc)	Χ	Χ	Χ	İ		i	Х	Χ	Χ	Χ	Χ	Χ	Χ		Χ	Χ	ľ	······	
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Adjacent Property Owners											······································								
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Latitude & Longitude	Χ	Χ	Χ		Χ	Χ	Χ	Χ		Χ	Χ		Χ						
Tax Parcel No. / Govt Lot		ļ					Χ	Χ	Χ	Χ					Χ	Χ			
Assessor's Complete Legal Description		ļ		ļļ.					ļ							Χ			
Water Body	Х	Χ	Χ			Χ	Χ	Χ	å	ļ	Χ	Χ	Χ			Χ			
Tributary of	X	Χ	Χ	ļ	Х	Χ	X	Χ	å	Χ	Χ		Χ						
WRIA - Water Resource Inventory Area							Х	Χ	Χ	Χ			Χ						
Site Description / Use / Zoning																			
Current Property Use	Χ	Χ	Χ		i		Х	Χ	Χ	Χ	Χ		Χ						
Existing Structures On-site	Χ	Χ	Χ		Ì			. <u></u>		Χ			Χ						
Structures on Adjacent Properties)			İ))					
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Within FEMA 100-yr Floodplain (Y/N)	Χ		ļ		3. .				Χ		•								
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Project Description (see also Drawings)																	
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Construction Materials & Methods							Х	Χ	Χ	Χ			Χ								

Source: Final Permit Streamlining White Papers Project. Common Permit Data Requirements: What are the Opportunities for Streamlining? WSDOT, November 17, 2003.

520.01	Introduction
520.02	Section 404 Permit – Discharge of Dredge and Fill Material
520.03	Section 10 Permit – Work in Navigable Waters
520.04	Section 9 Permit – Bridge Work in Navigable Waters
520.05	Archaeological Resources Protection Permit
520.06	Reserved
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520.08	Section 4(d) – Maintenance Activities Affecting Endangered Species
520.09	Section 7 Consultation – Activities Affecting Endangered Species
520.10	Section 106 Compliance – Impact on Historic Properties
520.11	Section 6(f) Approval – Impact on Outdoor Recreation Property
520.12	Wild and Scenic Rivers Review
520.13	Other Federal Approvals
	Authorization for Use of Federal Land
	Notification of Work Affecting Navigable Airspace
520.14	Exhibits

Key to Icon



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520.01 Introduction

Chapter 520 includes permits and approvals granted or issued by federal agencies. The most important and most frequently needed by WSDOT are permits issued by the Corps for activities impacting waters of the U.S.: Clean Water Act Section 404 permits (dredge and fill discharges), and Rivers and Harbors Act Section 10 permits (work in navigable water). A related permit is the General Bridge Act (Section 9) permit issued by the USCG for work on bridges in navigable water.

Three other federal approvals are less often needed primarily because they are limited to specific geographic locations. The Archaeological Resources Protection Permit is issued by the federal agency with jurisdiction over particular federal or tribal land. Authorization for Use of Public Lands is given, often in the form of an easement, by either the federal BLM or USFS for work on their lands. Notification of Work affecting Navigable Airspace must be submitted to the Federal Aviation Authority (FAA) when working near airports.

A number of other federal approvals (e.g. Section 106) are usually obtained during the NEPA/SEPA process for federally funded projects, and are discussed in detail in **Part 4**. For projects not subject to NEPA/SEPA (e.g. Categorical Exclusions), these other federal approvals may be obtained later in the design process. This may be either because they are required as a condition of approval for a federal permit, such

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/.

as the Section 404 or Section 10 permit or because of a design change which makes them necessary, such as a route change affecting a Section 6(f) property.

Requirements for approvals that are typically done during the NEPA/SEPA process are detailed in **Part 4** and summarized in **Part 5**. These are: Section 7 consultation for impacts on endangered species, Section 106 Concurrency for impacts on historic properties, Section 6(f) approval for impacts on outdoor recreation property funded under the Land and Water Conservation Act; and review of projects affecting wild and scenic rivers. Federal approvals not discussed in **Part 5** are compliance with Section 4(d) of the Endangered Species Act, Section 4(f) of the Transportation Act for impacts on public lands, Farmland Conversion Approval under the Farmland Protection Policy Act, and Environmental Justice concurrence for disproportionate impacts to minorities and low income people.

520.02 Section 404 Permit – Discharge of Dredge and Fill Material

(1) Overview

A Clean Water Act Section 404 permit from the Corps is required prior to discharging dredged or fill material into the waters of the United States, including special aquatic sites such as wetlands. The purpose of the permit is to prevent water quality degradation and to prevent the overall loss of waters of the US. The discharge of all other pollutants into waters of the U. S. is regulated under Sections 401 and 402 of the Clean Water Act (see Section 540.04 to Section 540.08, NPDES Permits).

The Section 404 permit process is the subject of a significant body of federal regulations, guidance letters, memoranda of agreements, and court decisions. The process may vary depending on court decisions as well as Section 404 jurisdiction or coverage. WSDOT's Environmental Services Office (ESO) monitors any proposed or required changes to Section 404 and how it may impact WSDOT projects. Regional environmental staff should consult first with their environmental manager, and second with ESO staff for recent changes to Section 404.

Agency Issuing Permit – The Corps Seattle District Regulatory Branch issues Department of the Army permits for activities in Washington State.

Statutory Authority – Section 404 of the Clean Water Act (33 USC 1344; 33 CFR 320-331). The following parts are most applicable to WSDOT projects: Part 320, general regulatory policies; Part 322, permits for structures or work affecting navigable waters of the U.S.; Part 323, permits for discharges of dredged or fill material into waters of the U.S.; Part 325, processing of permits; Part 326, enforcement; Part 327, public hearings; Part 328, definition of waters of the U.S.; Part 329, definition of navigable waters; Part 330, nationwide permit program; Part 331, administrative appeals process.

Regulated Activities – Section 404 permits are required for activities that discharge dredged or fill materials into the waters of the United States. These discharges include return water from dredged material disposed on the upland and generally any fill material (e.g., rock, sand, dirt) used for construction. The Corps' regulations contain extensive definitions of Section 404 terms. These are useful in clarifying the application of Section 404 to WSDOT projects.

WSDOT activities that typically require a Section 404 permit are:

- Depositing fill, dredged, or excavated material in waters of the U.S. including wetlands.
- Grading or mechanized land clearing of wetlands.
- Placing spoils from excavation activities in wetlands or other waters of the U.S.
- Moving soil during vegetation clearing in wetlands or other waters of the U.S.
- Filling any water of the U.S. during site development.
- Constructing revetments, groins, breakwaters, jetties, levees, dams, dikes, and weirs where any of the material would be placed below the OHWM or within wetland boundaries.
- Placing riprap and road fills below the OHWM of surface waters or within the boundaries of wetlands.
- Transporting dredged material to be dumped in the ocean.
- Restoring wetlands and streams.
- Reconstructing or replacing bridge abutments below the OHWM of surface waters.
- In some instances, maintenance activities that alter the character, scope, or size of the original fill design below the OHWM of surface waters or which place fill in wetlands (see "Exempt Activities" below).

Exempt Activities – The Section 404 regulations exempt maintenance activities on the transportation structure, except those that alter the character (including materials), scope, or size of the original fill design. (NOTE: Some things such as fish ladders or grade control structures may not be considered to be part of the transportation structure. Also note that changing the size of material used such as changing from quarry spalls to riprap, or extending the riprap a few feet in one direction or another to better protect a structure is a change in size, scope and character. This exemption is interpreted very conservatively.) Exempt activities include emergency repairs of currently serviceable structures such as bridge abutments and transportation structures. Emergency repairs must be done within a reasonable time after the damage occurs (generally interpreted as no more than two years after a discrete event). Note: Nationwide Permit 3 authorizes the repair, rehabilitation, and replacement of any previously authorized structure or fill that does not qualify for the Section 404(f) exemption for maintenance.

Geographic Extent – Section 404 jurisdiction encompasses navigable waters plus their tributaries and adjacent wetlands and isolated waters where the use, degradation or destruction of such waters could affect interstate or foreign commerce.

Under the Talent Ruling, the courts have expanded Section 404 jurisdiction to include roadside ditches that are tributaries to waters of the U.S. WSDOT's ESO is monitoring the application of the Talent Ruling and details of how it applies to WSDOT projects may be found online at:

http://www.wsdot.wa.gov/environment/Talent/default.htm

Types of Permits – The Corps issues two types of Section 404 permits, Individual and General. General permits are for a general category of activities that are similar in nature and cause minimal specific or cumulative environmental impact. There are three types of General Permits: Nationwide, Regional and Programmatic. Nationwide Permits (NWP) are issued by Corps Headquarters covering a given activity nationally. Regional Permits are issued by a District office for a specific region; currently no regional permits are applicable to WSDOT. Programmatic Permits are founded on an existing state, local or other federal agency program and designed to avoid duplication with that program; currently no programmatic Corps permits are applicable to WSDOT.

Individual permits are required for activities not covered by a General permit and are issued on a case-by-case basis. There are two types of Individual Permit: Individual and Letters of Permission. An *Individual Permit* process includes a public interest review with a public notice and an opportunity for comment. *Letters of Permission* (LOP) may be issued for minor activities, using an abbreviated processing procedure which includes coordination with federal and state fish and wildlife agencies and evaluation of public interest, without need for public notice. LOPs are authorized by statute but are not normally issued for Section 404 permits. In practice, the Seattle District primarily uses LOPs for Section 10 permits.

Prerequisite Permits and Approvals – Both General (Nationwide) and Individual Section 404 permits require compliance with federal laws such as NEPA, ESA, and NHPA as well as other applicable federal, state or local permits and approvals.

Permitted activities must be NEPA compliant, and most decisions on an Individual Permit application require either an accompanying environmental assessment (EA) or environmental impact statement (EIS). LOPs are designated as categorically exempt from NEPA. NWPs and Regional Permits are already NEPA compliant under the NEPA process conducted by the Corps or other federal agency assuming lead agency status at the time of adoption.

The following federal approvals are prerequisites, or must be approved concurrently with issuance of a Section 404 permit for many WSDOT projects:

- Endangered Species Act (ESA) compliance (see Section 436.05 and Section 520.09). The NWP National Regional Condition 11 states that no activity is authorized under any NWP until ESA requirements have been satisfied.
- Section 401 Water Quality Certification (see Section 540.02).
- Coastal Zone Management Consistency (see Section 540.03).
- Magnuson-Stevens Fishery Conservation and Management Act.
- Section 106 National Historic Preservation Act Concurrency (see Section 446.05 and Section 520.10).
- Fish and Wildlife Coordination Act.
- Wild and Scenic Rivers Act (Section 7a).

Other applicable laws can be found at 33 CFR 320.3.

Related Permits and Approvals – The Corps may condition a permit to require other agency authorization or concurrence prior to commencing project activities, unless such authorizations are, by law, a prerequisite for a Corps permit approval as described above.

Dredge and fill activities affecting navigable waters also require a Section 10 permit, which may be authorized under the same Department of the Army permit as the Section 404 permit (see Section 520.03).

For bridges over navigable water, the U.S. Coast Guard (USCG) permits the construction of the structure (see Section 520.04). However, a Section 404 permit (NWP 15) may be required from the Corps for fills incidental to bridge construction. A Section 404 permit may also be required for impacts to wetlands or other waters of the U.S. outside the navigable water; for example wetland fills for approach road improvements.

As part of the ESA consultation, a Biological Evaluation may be required to describe potential impact to endangered and threatened species. (See Section 436.05 and Section 520.09.)

In certain projects involving wetlands on agricultural land, the Corps decides whether the Natural Resources Conservation Service (NRCS) has jurisdiction under Food Security Act (swampbuster) provisions regulating farmed wetlands. For more information on wetlands and agriculture, see the Corps Seattle District Regulatory Branch web site. For other requirements related to projects on agricultural land, see Section 454.05.

Other permits typically required are: Hydraulic Project Approval (HPA) from WDFW (Section 540.15); leasing of riverbottom lands from WDNR (Section 540.16); and Shoreline permit from local government (Section 550.02).

Interagency Agreements – The September 2002 Signatory Agency Committee Agreement is designed to integrate aquatic resource permit requirements into the NEPA/SEPA processes for proposed WSDOT/H&LP construction projects. It applies to all WSDOT projects requiring an Individual Corps Section 404 or Section 10 permit and FHWA action on a NEPA EIS (see Section 411.06). The agreement, currently being revised, is online at:

http://www.wsdot.wa.gov/environment/compliance/SAC_committee.htm

Processing Time – For Individual Permits, processing time ranges from four to twelve months beginning on the date a complete application is received, and possibly longer depending on the complexity of the project. Processing by the Corps may be delayed if a Section 401 permit is pending. Processing time is generally less for other types of permits. The Corps' goal is to process individual permits within 120 days; longer processing times are generally due to ESA issues and applicant delays.

Fees – The Corps does not charge permit fees to WSDOT.

(2) How to Apply

For details on permit applications, the web site below includes definitions, ESA requirements, allowable work windows, forms, and the Corps' specific guidelines for project drawings.

http://www.nws.usace.army.mil/index.cfm

Click on Regulatory/Permits, then Permits and Applicant Information. (For helpful hints on permitting, click on Standard Individual Permits.)

Or by direct link:



http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG& pagename=mainpage_Permit_Applicant_Info

JARPA – Applications for Individual Permits and coverage under Nationwide Permits are submitted as part of the Joint Aquatic Resources Permit Application (JARPA), a system designed to allow applicants in Washington to batch permit applications and encourage concurrent permit review periods. JARPA forms and other information are on the Corps web site above, or Ecology's web site:



http://www.ecy.wa.gov/

Click on Services, then Permit Assistance Center, then Permit Applications. then Joint Aquatic Resource Permit Application (JARPA).

Or by direct link:



http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:



http://www.one-stop-jarpa.org/

Pre-application Conference - An initial meeting or telephone conference with Corps staff can determine whether a project is covered by an NWP, or if an Individual Permit is required. For complex projects, particularly those requiring an Individual Permit, one or more pre-application meetings are suggested with Corps and representatives of other agencies with jurisdiction over the project. These meetings familiarize agencies with the project, and give WSDOT an opportunity to discuss alternatives and clarify the documentation requirements of all parties. Corps meetings are held monthly and must be scheduled 30 days in advance. A project summary should be sent to participating agencies ten days in advance of the meeting date. Additionally, the WSDOT ESO Permit Program facilitates project review meetings in Seattle every other month with the Corps and Ecology for projects that require Section 404 and Section 401 approval; contact Gregor Myhr, Permit Program Manager, 360-705-7487. Projects assigned to the MAP Team may request an Early Project Coordination Meeting with all resource agencies.

Special Information Requirements – Corps specifications for project drawings are different from standard JARPA specifications (see Corps web site above, Permit and Applicant Information). For example, for standard Individual Permits, plans (drawings) must be submitted on 8.5 by 11-inch paper because they are used for public notice.

Public Notice - The Corps publishes the public notice only for Individual permits. For some NWPs and LOPs the Corps provides a notification to other agencies that allows resource agencies an opportunity to comment on the project. This comment period ranges from 7 to 10 days and is limited to agency notification.

Submitting the Application – Complete the JARPA application, with detailed and thorough project information and drawings. For NWP applications a completed JARPA is your preconstruction notification. In the JARPA include information specifically required for that NWP (see the following section, Nationwide General Permits.). Processing time does not begin until the Corps receives complete information, including proper drawings. Submit to:

Seattle District, Corps of Engineers Regulatory Branch, CENWS-OD-RG Post Office Box 3755 Seattle, WA 98124-3755

See below for agency and public review process, appeal, and post-permitting requirements for nationwide, regional, and industrial permits.

(3) Nationwide General Permits (NWP)

The Corps has already issued the NWPs; therefore WSDOT must simply demonstrate compliance with an NWP and receive Corps approval (although some NWPs are approved automatically).

NWPs Applicable to WSDOT – Nationwide Permits that commonly apply to WSDOT projects are:

- 3 Maintenance
- 6 Survey Activities
- 7 Outfall Structures and Maintenance
- 13 Bank Stabilization
- 14 Linear Transportation Projects
- 15 U.S. Coast Guard Approved Bridges
- 18 Minor Discharges
- 19 25 Cubic Yard Dredging
- 23 Approved Categorical Exclusions
- 27 Stream and Wetland Restoration Activities
- 33 Temporary Construction, Access, and Dewatering
- 41 Reshaping Existing Drainage Ditches
- 43 Stormwater Management Facilities

Information specific to each NWP must be submitted along with the JARPA form. For content requirements, see the web site below.

NWPs are updated every five years and were last modified in 2002. See the web site below for information including current and past NWPs, national and regional conditions, and how to apply.

http://www.nws.usace.army.mil/index.cfm

Click on Regulatory/Permits, Nationwide Permits.

Or by direct link:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_NWPs

Agency and Public Review – Upon receipt of a permit application, the Corps has 15 days to determine if the application is complete (33 CFR 325.2(a)(1)). The Corps has 45 days from receipt of a complete application to determine whether the activity meets federal criteria and any applicable regional conditions for authorization. The review can be delayed if more information is needed or another permit is pending. Public review is not required for coverage under the NWP program although some NWPs require the Corps to notify other resource agencies and allow them an opportunity to comment on the proposal.

The Corps issues or denies an NWP "verification" and gives WSDOT a Statement of Finding describing how the permit decision was made.

Appeal Process – Applicants, not members of the public, may appeal a Corps decision on two grounds: (1) denial of the application, or (2) whether the Corps has jurisdiction over the particular activity for which the NWP is being sought. WSDOT may not appeal a condition of a NWP.

Post-permitting Requirements – When issuing an NWP verification, the Corps sends WSDOT a Certificate of Compliance stating that the work and any required mitigation has been completed in accordance with the NWP. Upon completion of the work, WSDOT signs the certification and returns it to the Corps.

(4) Regional General Permits

No Regional Permits have been issued that are applicable to WSDOT activities.

(5) Individual Permits

Individual Permits are required for Section 404 dredge disposal and filling project activities not covered by an NWP. The Individual Permit program is administered jointly by USEPA and Corps. For projects that also require a NEPA EIS, the USFWS, NOAA Fisheries, and state agencies have important review roles, defined in the September 2002 Signatory Agency Committee agreement.

For information on Individual Permits, including processing procedures, evaluation factors, helpful hints, and pre-application meeting suggestions, see the Seattle Corps web site:

http://www.nws.usace.army.mil/index.cfm

Click on Regulatory/Permits, then Permit and Applicant Information, then Standard Individual Permits.

Or by direct link

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Individual Permits

Agency and Public Review – Within 15 days of receiving all information, the Corps issues a public notice, beginning a 15 to 30 day comment period which may be extended an additional 30 days. The proposal is reviewed by the Corps, other federal, state and local agencies, the public, and special interest groups. Citizens may request a public hearing.

For NWPs requiring pre-construction notification, the Corps has 45 days from receipt of a completed application to verify, condition or deny the permit. For NWPs not requiring pre-construction notification, the Corps has 60 days to respond. For Individual permits, the Corps goal is to respond with in 120 days.

Appeal Process – Applicants may appeal conditions of Individual Permits or denial of the application.

Post-permitting Requirements – See Part 6 for procedures during construction, particularly Section 620.04, Water Quality.

(6) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy, and technical guidance, please refer to **Chapter 431**, Water Quality, **Chapter 432**, Floodplain; **Chapter 437**, Wetlands; and **Chapter 452**, Coastal Areas and Shorelines.

For details on the Corps regulatory program, the web site below has a link to the on-line permit tracking system and also includes information on endangered species, waters and wetlands, enforcement and compliance, and regulatory actions.

http://www.nws.usace.army.mil/index.cfm

Click on Regulatory/Permits

Or by direct link:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Home Page

(7) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from the WSDOT Liaison Program, Carrie Berry, Manager, 360-705-7662, Berryc@wsdot.wa.gov; or Permit Program, Gregor Myhr, Manager, 360-705-7487.

Contact information for the WSDOT/Corps Liaison team Regulatory Branch staff is listed at:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT

For WSDOT projects, the Ecology Federal Permits Unit staff responsible for coordinating Nationwide 404 Permits, Section 401 Water Quality Certification, and Coastal Zone Management Consistency Determinations are:

Permanent:

- Sandra Manning, 360-407-6912, sman461@ecv.wa.gov
- Therese Swanson, (Terry) 360-407-6789 tswa461@ecy.wa.gov
- Lisa Rozmyn, 360-407-7032, lroz461@ecy.wa.gov

- Kerry Carroll, 360-407-7503, kstr461@ecy.wa.gov
- Penny Kelley, 360-407-7298, pkel461@ecy.wa.gov
- Penny Keys, 360-407-6927, pkey461@ecy.wa.gov

Temporary:

• Sandra Lange, 306-407-0273, slan461@ecy.wa.gov

Ecology's staff on the Multiple Agency Permitting (MAP) team for WSDOT projects is Rebecca Ponzio, 425-649-7000, rpon461@ecy.wa.gov.

(8) Information Last Updated May 20, 2005.

520.03 Section 10 Permit – Work in Navigable Waters

(1) Overview

Section 10 of the Rivers and Harbors Act requires Corps approval prior to any construction, excavation, or deposition of materials in, over or under navigable waters of the United States, or any work which would affect the course, location, condition or capacity of such waters. The purpose of the permit is to prevent obstructions to navigation.

In general, the Corps administers the Section 10 permits under the same procedures as for the Section 404 permit. Because Section 404 jurisdiction is broader, in most cases where a Section 10 permit is required, a Section 404 permit is also required. The Corps typically issues a joint permit. The process for obtaining a Section 10 permit is covered under **Section 520.02**, Section 404 Permits.

Agency Issuing Permit – The Corps Seattle District Regulatory Branch issues regulatory permits for activities in Washington State.

Statutory Authority – Rivers and Harbors Act of 1899, Section 10 (33 USC 403; 33 CFR 322).

Regulated Activities – A Section 10 permit is required for any work such as dredging, alteration, or improvements of the waterway and any structures in navigable waters. (NOTE: Wetlands subject to the ebb and flow of the tides may be regulated under Section 10 as well as Section 404, but there is no depth restriction associated with Section 10 jurisdiction.) Typical activities requiring a Section 10 permit are:

- Construction or installation of piers, wharves, bulkheads, dolphins, ramps, floats, overhanging decks, buoys, intake structures, outfall pipes, overhead transmission lines, and cable or pipeline crossings.
- Dredging and excavation.

Exempt Activities – There are no exemptions to Section 10.

Geographic Extent – Navigable waters are those subject to tidal action shoreward to mean high water, or that are used, have been used, or are susceptible to use in interstate or foreign commerce. In Washington, Section 10 jurisdiction encompasses navigable waters including Puget Sound, the Columbia River,

certain other navigable rivers and lakes, and coastal areas including channels and bays. A list of navigable waters is available on the Corps web site.

Types of Permits – For details, please see Section 520.02, Section 404 Permits.

Prerequisite Permits and Approvals – Both General (Nationwide) and Individual Section 10 permits require compliance with federal laws including NEPA, ESA, and NHPA as well as other applicable federal, state or local permits and approvals. For details, see **Section 520.02**, Section 404 Permits.

Related Permits and Approvals – The Corps may condition a permit to require other agency authorization or concurrence prior to commencing project activities, unless such authorizations are, by law, a prerequisite for a Corps permit approval as described in **Section 520.02**.

Dredge and fill activities affecting navigable waters also require a Section 404 permit, which may be authorized under the same Department of the Army Permit as the Section 10 permit (see Section 520.02).

For bridges over navigable water, the USCG permits the construction of the structure (see Section 520.04) and a Section 10 permit is not required. However, a Section 404 permit (NWP 15) may be required from the Corps for related fills incidental to bridge construction.

As part of the ESA coordination, an environmental document (Biological Evaluation) may be required to describe potential impact to endangered and threatened species. (See Section 436.05 and Section 520.09.)

Other permits typically required are: Hydraulic Project Approval (HPA) from WDFW (Section 540.15); leasing of riverbottom lands from WDNR (Section 540.16); Shoreline permit from local government (Section 550.02).

Interagency Agreements – See Section 520.02, and Section 431.04, Water Quality, for discussion of the Signatory Agency Committee Agreement to integrate aquatic resource permit requirements into WSDOT NEPA/SEPA processes and the Working Agreement on the Corps permit in WSDOT project development.

Processing Time – Same as for Section 404 Permits; see Section 520.02.

Fees – The Corps does not charge permit fees to WSDOT.

(2) How to Apply

For details on permit applications the web site below includes definitions, ESA requirements, allowable work windows, forms, and the Corps' specific guidelines for project drawings.



Click on Regulatory/Permits, then Permits and Applicant Information. (For helpful hints on permitting, click on Standard Individual Permits.)

Or by direct link:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info

JARPA – Nationwide and Individual Permit applications are submitted as part of the Joint Aquatic Resources Permit Application (JARPA), a system designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods. JARPA forms and other information are on the Corps web site above and Ecology's web site:

http://www.ecy.wa.gov/

Click on Services, then Permit Assistance Center, then Permit Applications, then Joint Aquatic Resource Permit Application (JARPA).

Or by direct link:



Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:



Pre-application Conference – For details, please see Section 520.02. For Section 10 projects that do not meet the Letter of Permission criteria, WSDOT can apply for a Nationwide Permit or an Individual Permit.

Special Information Requirements – For details, please see Section 520.02.

Public Notice – The Corps publishes public notices for Individual Permits only.

Submitting the Application – For details, please see Section 520.02.

Agency and Public Review – The same as for Section 404 permits. See **Section 520.02**.

Appeal Process – The same as for Section 404 permits. See Section 520.02.

Post-permitting Requirements – If open water disposal of dredged material is proposed there would be additional requirements including notification of the Corps and the Coast Guard prior to transport of dredged materials and monitoring during disposal.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. Please refer to **Chapter 431**, Water Quality; **Chapter 432**, Floodplain; and **Chapter 452**, Coastal Areas and Shorelines.

For details on the Corps regulatory program, the web site below has a link to the on-line permit tracking system and also includes information on endangered species, waters and wetlands, enforcement and compliance, and regulatory actions.

http://www.nws.usace.army.mil/index.cfm

Click on Regulatory/Permits

Or by direct link:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info

Or:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG& pagename=Home Page

Permit Assistance (4)

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see Appendix G for list of contacts). Other assistance is available from the WSDOT Liaison Program, Carrie Berry, Manager, 360-705-7662, Berryc@wsdot.wa.gov, or the WSDOT ESO Permit Program, Gregor Myhr, Manager, 360-705-7487.

Contact information for the WSDOT/Corps Liaison team Regulatory Branch staff members is listed at:

tttp://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG& pagename=Team DOT

For WSDOT projects, the Ecology Federal Permits Unit staff responsible for coordinating Nationwide 404 Permits, Section 401 Water Quality Certification, and Coastal Zone Management Consistency Determinations are:

Permanent:

- Sandra Manning, 360-407-6912, sman461@ecy.wa.gov
- Therese Swanson, (Terry) 360-407-6789 tswa461@ecy.wa.gov
- Lisa Rozmyn, 360-407-7032, lroz461@ecy.wa.gov
- Kerry Carroll, 360-407-7503, kstr461@ecy.wa.gov
- Penny Kelley, 360-407-7298, pkel461@ecy.wa.gov
- Penny Keys, 360-407-6927, pkey461@ecy.wa.gov

Temporary:

Sandra Lange, 306-407-0273, slan461@ecy.wa.gov

Ecology's staff on the Multiple Agency Permitting (MAP) team for WSDOT projects is Rebecca Ponzio, 425-649-7000, rpon461@ecy.wa.gov.

*(*5*)* Information Last Updated

May 20, 2005.

Section 9 Permit – Bridge Work in Navigable Waters 520.04

(1) Overview

The General Bridge Act of 1945, formerly Section 9 of the Rivers and Harbors Act, requires USCG approval to construct a new bridge or reconstruct or modify an existing bridge over navigable waters of the United States. The purpose of the act is to preserve the public right of navigation and prevent interference with interstate and foreign commerce. USCG policy is to protect the freedom of navigation and the quality of the environment, meeting the "reasonable needs" both of navigation and land traffic.

Agency Issuing Permit – U.S. Coast Guard, 13th District.

Statutory Authority – Rivers and Harbors Act of 1899, Section 9, 33 USC 11, 33 CFR 114 and 115; General Bridge Act of 1946, 33 USC 525; and Federal Aid Highway Act of 1987, Section 123(b).

Regulated Activities – Typical activities requiring a Section 9 permit are:

- Constructing a new bridge or causeway over a canal, channel, stream, river, lake, bay, or other navigable body of water.
- Modifying an existing bridge or causeway.
- Making repairs that alter structural configuration or navigational clearances; significantly modifying any substructure or superstructure components; changing a fender surface from wood to steel; or violating any navigational conditions of the original permit.
- Constructing a temporary bridge used during construction of a permanent bridge.

Exempt Activities – USGS permits are not required for the following projects:

- Constructing a bridge crossing non-tidal water not used or susceptible to use for transporting interstate or foreign commerce.
- Removing an existing bridge that will not be replaced by another bridge (USCG notification required).
- Retaining all or part of a bridge over navigable water for purposes other than transportation (Corps notification required).
- Repairing or replacing worn or obsolete parts on an existing bridge except as listed above.

Geographic Extent – For USGS bridge permitting purposes, a navigable waterway is any waterway that is subject to the ebb and flow of the tide; or that is presently used and/or is susceptible to use in its natural condition or by reasonable improvement, as a means to transport interstate or foreign commerce (33 CFR Subpart 2.05-25). In Washington, Section 9 jurisdiction encompasses navigable waters of Puget Sound, the Columbia River, and coastal areas including channels and bays, listed at the direct link:

http://www.uscg.mil/d13/exhibit11_k1.pdf

Types of Permits – Individual Section 9 permit.

Prerequisite Permits and Approvals – Section 9 (General Bridge Act) permits require compliance with NEPA, and the ESA as well as other applicable federal, state, or local statutes. Section 9 permits cannot be approved without a Clean Water Act Section 401 water quality certification (Section 540.02) and a Coastal Zone Management (CZM) Certification from Ecology (Section 540.03, coastal counties only). The 401 certification requires public notice before issuance, so WSDOT should notify Ecology in the early stages of preparing the permit application.

Related Permits and Approvals – Coast Guard bridge permits may also require a Section 404 permit from the Corps for dredge and fill activities (Section 520.02); Hydraulic Project Approval (Section 540.15) from the WDFW; authorization from WDNR (Section 540.16); and a Shoreline permit from local government (Section 550.02).

Bridge lighting requirements are specified as performance standards in 33 CFR 118.

Interagency Agreements – None applicable.

Processing Time – Processing time for WSDOT projects ranges from 3 to 6 months from the time a complete application is received, or longer depending on the complexity of the project. Processing may be contingent on a state or local permit timeline. The Coast Guard permit will not be issued before water quality and coastal zone issues have been resolved, and the biological assessment and biological opinion are complete.

Fees – Not applicable.

(2) How to Apply

The Coast Guard's detailed *Bridge Permit Application Guide* includes definitions, a description of the permitting process, information to be included in the application and on plan drawings, environmental documentation requirements, and specifications for bridge lighting and clearance gauges. See Appendix D and E for a sample cover letter and an application checklist. The guide is online via the U.S. Coast Guard Home page:



Click on Bridge Administration under Maritime Mobility.

Or by direct link:

http://www.uscg.mil/hq/g-o/g-opt/g-opt.htm

JARPA – The General Bridge Act permit application is submitted as part of the Joint Aquatics Resources Permit Application (JARPA), a system designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see Section 510.03, JARPA). JARPA forms and other information are on Ecology's web site:



Click on Services, then Permit Assistance Center, then Permit Applications, then Joint Aquatic Resource Permit Application (JARPA).

Or by direct link:

http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Or from the Corps Seattle District web site:

http://www.nws.usace.armv.mil/

Click on Regulatory/Permits, then Permits and Applicant Information, then Joint Aquatic Resource Permit Application.

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:

http://www.one-stop-jarpa.org/

Pre-application Conference – One or more pre-application meetings may be arranged with the USCG and other agencies with jurisdiction over the project.

Special Information Requirements – See the bridge permit application guide for complete specifications. Plans must be submitted on 8.5 by 11-inch paper.

Public Notice – The USCG publishes the public notice.

Submitting the Application – Complete the JARPA application, with detailed and thorough project information and drawings. Submit to:

Commander, 13th Coast Guard District 915 Second Ave. Seattle, WA 98174-1067

Attn: Austin Pratt

Agency and Public Review – Within 30 days of receiving the application, the USCG notifies WSDOT requesting any additional needed information. When the application is complete, the USCG publishes a public notice and a Local Notice to Mariners, and notifies other agencies. The USGS sends comments received during the 30-day comment period to WSDOT, and may hold scoping/coordination meetings and/or public hearings.

Bridge permit applications are first investigated by the USCG 13th District staff in Seattle for potential impacts on navigation and the human environment. The District Commander's recommendation is forwarded to USCG headquarters in Washington, which conducts its own evaluation, and a permit is then issued or denied. Permits are usually effective for three to five years; longer periods may be requested.

Appeal Process – A decision to deny a permit may be appealed to the Commandant of the Coast Guard within 60 days of the USCG District decision.

Post-permitting Requirements – A pre-construction conference may be requested to clarify construction procedures. See **Part 6** for procedures during construction. Permits typically include conditions such as those listed below.

- Temporary structures The permit usually includes a condition stating that
 the plans for temporary structures placed in the water must be approved
 before the start of construction. Minimum navigational clearances to be
 maintained during construction should be included in any construction
 contract.
- Local Notice to Mariners The USCG publishes an LNM to inform
 waterway users of work in progress that may affect navigation. Notify the
 USCG at the start of construction, when any event during construction
 affects navigation, and at the end of major construction phases.
- *Navigational Lighting* Approval of navigational lights and other required signals must be obtained prior to construction. Temporary navigational lighting must be maintained during construction.
- Maintenance Bridges constructed under a USCG permit must be maintained according to permit conditions and approved plans. Notify the USGS in advance regarding any maintenance that will affect navigation.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 431**, Water Quality; **Chapter 432**, Floodplain; **Chapter 452**, Coastal Areas and Shorelines; and **Chapter 453**, Wild and Scenic Rivers.

Other information specific to the USCG Pacific District can be obtained by the direct link:

http://www.uscg.mil/d13/

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from the WSDOT Liaison Program, Carrie Berry, Manager, 360-705-7662, Berryc@wsdot.wa.gov. For assistance from USGS, contact Austin Pratt at the 13th Coast Guard District in Seattle, 206-220-7282, William.A.Pratt@uscg.gov.mil.

(5) Information Last Updated May 9, 2005.

520.05 Archaeological Resources Protection Permit

(1) Overview

This permit is required under the Archaeological Resources Protection Act (ARPA), which aims to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites on federal and tribal lands. These resources are considered an irreplaceable part of the nation's heritage. The permit authorizes excavation and/or removal in a manner that prevents uncontrolled excavations resulting in the loss and destruction of these resources.

Agency Issuing Permit – For federal lands, the federal agency having jurisdiction: the Bureau of Land Management (BLM), National Parks Services (NPS), or Corps of Engineers (Corps). For tribal lands, the Bureau of Indian Affairs (BIA) Portland office.

Statutory Authority – 16 USC Chapter 1B 470; 43 CFR 7.

Regulated Activities – Any activity on federal or tribal land that may impact archaeological resources, as defined in the regulations.

Exempt Activities – Exceptions to permit requirements are in 43 CFR 7.5(b).

Geographic Extent – Federal and tribal lands in the State of Washington.

Types of Permits – Individual ARPA Permit.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – A state Archaeological Excavation and Removal permit is not required for excavation on federal or tribal lands. (see **Section 540.22**).

The issuance of an ARPA permit does not require compliance with Section 106 of the National Historic Preservation Act (see Section 456.05 and Section 520.10).

Interagency Agreements – None applicable.

Processing Time – Varies depending on the federal agency having jurisdiction.

Fees - None.

(2) How to Apply

For this permit, WSDOT has developed the procedures listed below. For both federal and tribal lands, the permit application is prepared by an archaeological consultant. The application form is available from the federal land manager or tribal representative.

Work on Federal Land

- a) During the annual review, the Regions identify potential projects crossing federal lands which may need ARPA permits.
- b) When a Task Order Document (TOD) using the ESO On-Call Agreements is approved for the project, the archaeological consultant completes an application for an ARPA permit and sends it to the Region involved.
- c) The Region sends the application to the federal agency having jurisdiction. Each agency has its own internal process in granting permits, thus turnaround time for each application can be different.
- d) Agencies respond to the Region (not to the archaeological consultant) via a letter giving approval.
- e) The Region advises the archaeological consultant to proceed with the work.
- f) The archaeological consultant conducts surveys or reconnaissance and, when a potentially significant resource is present, tests for National Register of Historic Places eligibility. When testing indicates there is a significant resource (historic property) present that the project will impact, data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

Work on Tribal Land

- a) During the annual archaeological review, the Regions identify Tribal lands where ARPA permits may be needed.
- b) When a project TOD is approved, the archaeological consultant completes an application for an ARPA permit and sends it to the Region involved.
- c) The Region determines which type of Tribal land is involved; Reservation Lands, Allotment Lands on the reservation, or Allotment Lands off the reservation. The Regions then apply for the permit as described below.

For Tribal lands on the reservation:

• The Region contacts the U.S. Bureau of Indian Affairs (BIA) in Portland to see if the process can be shortened and not involve the Tribes.

- The Region sends an application to the Tribe, requesting a letter of approval. The Tribe should return the application to the Region.
- The Region sends Tribe-approved application to the BIA in Portland, requesting approval.
- BIA responds to the Region via a letter of approval.
- The Region advises the archaeological consultant to proceed with the work.
- The archaeological consultant conducts surveys or reconnaissance and, when the potential exists that a significant resource may be present, tests for National Register of Historic Places eligibility. When testing indicates there is a significant resource present that the project will impact, data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

For Allotment Lands on the Reservation:

- Region requests the allottees' names from the BIA in Portland and/or the BIA office on the Tribal reservation.
- The Region Right-of-Way Office contacts the allottees requesting written approval or disapproval of the archaeological project. This is done as part of the normal right-of-way negotiation procedure. The archaeological consultant can assist in that effort as requested by the Region. Fifty-one percent of the allottees on each allotment involved in the project must approve of the archaeological project in order for the permit to be acquired.
- After allottee approval is obtained, the Region sends an application to the Tribe requesting their approval since they also must agree to give the permit. (When the Tribe approves, they can add conditions.) The Tribe is requested to return the application to the Region.
- The Region sends the Tribe-approved application to BIA in Portland for approval.
- BIA responds to the Region via letter of approval.
- The Region advises the archaeological consultant to proceed with the work.
- The archaeological consultant does surveys or reconnaissance, and, when the potential exists that a resource may be present, cultural resource testing. When testing indicates there is a resource present that the project will impact, data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

For Allotment Lands off the Reservation:

- The Region requests the allottees' names from the BIA in Portland and/or the BIA office on the Tribal reservation.
- The Region Right-of-Way Office contacts the allottees requesting written
 approval or disapproval of the archaeological project. This is done as part
 of the normal right-of-way negotiation procedure. The archaeological
 consultant can assist in that effort as requested by the Region. Fifty-one
 percent of the allottees on each allotment involved in the project must
 approve of the archaeological project in order for the permit to be acquired.
- The Region sends approved application to the BIA in Portland for approval.

- BIA responds to the Region via letter of approval.
- The Region advises the archaeological consultant to proceed with the work.
- The archaeological consultant does surveys or reconnaissance, and, when the potential exists that a resource may be present, cultural resource testing. When testing indicates there is a resource present that the project will impact, then data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Information required in the permit application is outlined in the federal regulations at 43 CFR 7.

Public Notice - Not applicable.

Submitting the Application – For work on federal land, the Region submits the application to the regional office of the federal agency having jurisdiction. For work on tribal land, the Region submits the application according to the type of tribal land (see above).

Agency and Public Review – Procedures vary depending on the agency having jurisdiction.

Appeal Process – Any person may appeal the permit issuance, denial, suspension, revocation and terms and conditions of a permit through the administrative procedures of the agency having jurisdiction.

Post-permitting Requirements – See Part 6 for procedures during construction, particularly Section 620.09, Historic and Cultural Resources, and Exhibit 620-3, Contract General Special Provisions on Discovery of Cultural Resources during Construction.

(3) For More Information

Please see **Chapter 456**, Historic, Cultural and Archaeological Resources, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office (ESO). Call Sandie Turner, 360-570-6637, TurnerS@wsdot.wa.gov; or Craig Holstine, 360-570-6639, HolstineC@wsdot.wa.gov. Contact the federal land agency manager for additional assistance.

(5) Information Last Updated May 20, 2005.

520.06 Reserved

520.08 <u>Section 4(d) – Maintenance Activities Affecting Endangered</u> Species

(1) Overview

In June 2000, NOAA Fisheries adopted a rule under Section 4(d) of the ESA.

This rule prohibits the take of 14 salmon and steelhead Evolutionarily Significant
Units (ESUs) in the Pacific Northwest. Eight of these ESUs are in Washington
State. The 4(d) rule was published July 10, 2000 (65FR 42422).

The rule applies to any agency, authority, or private individual subject to U.S. jurisdiction. However, the take prohibition is not applied to threatened species when the take is associated with a NOAA Fisheries-approved program (one of the 13 "limits"). The 13 limits can be considered exceptions to the 4(d) take prohibition. NOAA Fisheries has determined that these programs, activities, and criteria will minimize impacts on threatened steelhead and salmon enough so additional federal protection is not needed. NOTE: If there is a federal action agency, Section 7 consultation is still required.

NOAA Fisheries will periodically monitor these activities to ensure they continue to qualify under the 4(d) limit. Entities that have been granted a take limit for their activities must conduct monitoring to ensure they remain consistent with the approved plan or program. The 13 limits include:

- ESA Permits.
- Ongoing Scientific Research (expired March 7, 2001).
- Fish Rescue and Salvage Actions (limited to agency or official personnel or their designees).
- Fishery Management (limited to fishery management agencies).
- Artificial Propagation (federal or state hatcheries).
- Joint Tribal/State Plans (covering aspects of fishery management).
- Scientific Research Activities (either permitted or conducted by the state).
- <u>Habitat Restoration (if part of a state-certified watershed conservation plan).</u>
- Water Diversion Screening (must comply with NOAA Fisheries' *Juvenile Fish Screening Criteria*).
- Routine Road Maintenance (equivalent or better to Oregon State Department of Transportation program).
- Portland Parks Integrated Pest Management (specific to Portland Parks).
- <u>Municipal, Residential, Commercial, and Industrial Development and Redevelopment.</u>

WSDOT's routine, unscheduled, and emergency/disaster maintenance activities are covered under the Routine Road Maintenance limit because WSDOT cooperated with 29 other agencies to develop a Regional Road Maintenance

Program (RRMP) that received NOAA approval on August 15, 2003. The program defines general practices (such as adaptive management, monitoring, and training) and specific practices (such as BMPs) that WSDOT will use to avoid adverse impacts to the aquatic environment.

The WSDOT program is described in the *Regional Road Maintenance Endangered Species Act Program Guidelines*, which can be found at:

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http://www.wsdot.wa.gov/

Click on Environmental, then Regional Road Maintenance Endangered Species Act Program Guidelines.

Or by direct link:



http://www.wsdot.wa.gov/maintenance/roadside/esa.htm

(2) How to Apply

No application is required for maintenance activities covered under and conducted in accordance with the Regional Road Maintenance Endangered Species Act Program Guidelines.

(3) For More Information

Refer to Chapter 436 for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

(4) Permit Assistance

See Section 436.05.

(5) Information Last Updated

January, 2006.

520.09 Section 7 Consultation – Activities Affecting Endangered Species

(1) Overview

All projects with a federal nexus are subject to Section 7 of the Endangered Species Act (ESA), which requires federal agencies to ensure that their actions to authorize, permit, or fund a project do not jeopardize the continued existence of any threatened or endangered species. It describes conservation obligations and procedures for consultation with federal agencies, National Oceanic and Atmospheric Administration (NOAA) Fisheries and U.S. Fish and Wildlife Service (USFWS).

For WSDOT projects with a federal nexus, ESA compliance, including Section 7 consultation, will have been completed during the NEPA process as described in **Chapter 436**.

There are two circumstances when Section 7 consultation may occur during the permitting process. First, if no federal funds are involved in the project (state funds only), WSDOT may not be required to comply with NEPA during the environmental documentation process and no Section 7 consultation would

occur. If the project subsequently requires a Corps Section 404 or Section 10 permit, WSDOT would comply with Section 7 consultation during permitting.

Second, if several years have passed since completing Section 7 consultation during the environmental documentation process, FHWA's Section 7 guidelines suggest WSDOT should screen the protected species lists for new or changed threatened/endangered listings or correspond with USFWS and NOAA Fisheries. The project scope of work should also be redefined to ensure that no new or changed activities will occur during construction. Depending on the results of these screenings, further Section 7 consultation may be necessary (see Exhibit 436-4).

For interagency coordination, WSDOT acts on behalf of the responsible federal agencies: FHWA for federally funded projects, and the Corps for projects needing Corps permits.

WSDOT has made ESA compliance an agency-wide priority. During construction and maintenance, WSDOT employees and contractors need to be aware of prohibitions against taking of threatened or endangered plant or animal species (ESA Section 9) and the obligation to report any incidental takes (ESA Section 4(d)). See Section 620.05 and Section 790.02.

(2) How to Apply

Section 436.05(3)(b) gives detailed instruction on complying with Section 7 consultation requirements. In general, WSDOT must complete an analysis of impacts on threatened and endangered species. Depending on the level of impacts, a "no effect" letter and/or a biological assessment (BA) will be required. Projects requiring a BA could be covered under an existing Programmatic Biological Assessment (PBA) and/or they could require completion of an individual BA. Depending on the level of impact identified in the above documentation, informal or formal consultation with the Service (NOAA Fisheries and USFWS) may be required.

(3) For More Information

Refer to Chapter 436 for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

(4) Permit Assistance See Section 436.05.

(5) Information Last Updated May 20, 2005.

520.10 Section 106 Compliance – Impact on Historic Properties

(1) Overview

All projects with a federal nexus are subject to Section 106 of the National Historic Preservation Act, which requires federal agencies to take into account the effect of their actions on properties listed, or eligible for listing, on the National Register of Historic Places.

WSDOT and FHWA have entered into a Programmatic Agreement on Section 106 Compliance under which WSDOT reviews all projects, regardless of funding source, for Section 106 compliance (see Section 456.04). Even if there is no federal funding and no federal permits are required, WSDOT must complete the Section 106 compliance procedure prior to any action that could affect historic or cultural resources.

In most cases, Section 106 compliance is completed during the environmental documentation for NEPA/SEPA. If there is no federal funding, but the project requires a Corps Section 404 or Section 10 permit, WSDOT must complete the process before the Corps will issue the permit.

(2) How to Apply

Section 456.05 provides detailed guidance on preparing cultural resources studies. In general, the Washington Office of Archaeology and Historic Preservation (OAHP) must be consulted to help determine if the site has been surveyed, if historical resources have been identified on-site, and if the property is listed or eligible for listing on the National Historic Register. If the proposed project activities will adversely affect such properties, OAHP concurrence must be obtained that proposed actions will effectively avoid or mitigate that adverse effect.

For details, see technical guidance in Section 456.05(2).

(3) For More Information

Refer to Chapter 456 for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

(4) Permit Assistance See Section 456.05.

(5) Information Last Updated May 20, 2005.

520.11 Section 6(f) Approval – Impact on Outdoor Recreation Property

(1) Overview

Section 6(f) of the Land and Water Conservation Funds Act (LWCFA) concerns transportation projects that propose impacts to, or permanent conversion of, outdoor recreation property that was acquired or developed with LWCFA grant assistance. In Washington these grants are distributed by the Interagency Committee for Outdoor Recreation (IAC).

The IAC and the Department of the Interior (National Parks Service) must approve any conversion of property acquired or developed with LWCFA funds to a use other than public outdoor recreation. As a condition of approval, the replacement land must be of equal value, location and usefulness, and the land transfer must be documented.

Most WSDOT projects fulfill Section 6(f) requirements during the NEPA environmental documentation phase, but occasionally they are negotiated during

the permitting phase. For example, while initial route planning may not have identified impacts to properties subject to Section 6(f), subsequent route or design changes may require using all or part of a property that had been purchased or improved with LWCFA funds.

Compliance with Section 6(f) is actually the responsibility of the property owner as the permit applicant, which is not always WSDOT. The owner of Section 6(f) property cannot authorize its conversion to non-recreational use without approval from the Secretary of Interior.

The sponsoring agency initially responsible for obtaining the LWCFA funds (e.g. county or city) must be involved in negotiations to ensure that the converted property receives proper compensation in accordance with Section 6(f) procedures.

(2) How to Apply

Detailed WSDOT guidance is available on WSDOT's ESO Compliance Program web site:



http://www.wsdot.wa.gov/environment/compliance/Section6f_guidance.htm

For More Information (3)

Refer to Chapter 455 for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

Detailed policy and procedures information can be accessed by the following ESO-Compliance Program direct link:



http://www.wsdot.wa.gov/environment/compliance/Section6f_guidance.htm

(4) Permit Assistance

As for all WSDOT permits, first contact the WSDOT regional office environmental staff for guidance (see Appendix G for list of contacts). Other assistance is available from the ESO, Steven Yach, 509-324-6132, Yachs@wsdot.wa.gov.

Also, see Section 455.05.

(5) Information Last Updated

May 20, 2005.

Wild and Scenic Rivers Review 520.12

(1) Overview

Three Washington rivers managed by the U.S. Forest Service are protected by the federal Wild and Scenic Rivers Act: the Klickitat River and White Salmon River, both located in the Columbia Gorge National Scenic Area, and the Skagit River in the Mount Baker-Snoqualmie National Forest.

In addition, Washington State has a Scenic Rivers System designation (79A.55 RCW) documenting management policies and river inclusion criteria. This

designation pertains to sections of the Skykomish River, Beckler River, Tye River, and Little Spokane River.

Special designations have also been declared for two conservation areas within Washington State: the Green River Gorge Conservation Area and Yakima River Conservation Area.

While no specific permits are required, close agency coordination is needed on studies, agency determination of impacts and possible mitigations, and selection of alternatives.

For most WSDOT projects – those using federal funds – requirements will have been completed during the NEPA process. However, for projects that use only state funding and require a federal Corps Section 10 or Section 404 permit, WSDOT will need to comply with the Wild and Scenic Rivers Act during the permitting process. The Corps will not approve the permit unless WSDOT has complied with the Wild and Scenic Rivers Act.

Chapter 453 identifies the specific rivers subject to the federal or state requirements and additional information regarding applicable statutes and regulations, policy guidance, and technical guidance.

(2) How to Apply

Chapter 453 provides guidance on the submittal requirements and process. For Washington rivers, the responsible agencies are: Mt. Baker-Snoqualmie National Forest, Mt. Baker Ranger District; National Park Service, Recreation Programs; Columbia Gorge Commission; and State Parks and Recreation Commission. Contact should be initiated early to identify any agency concerns.

(3) Information Last Updated May 20, 2005.

520.13 Other Federal Approvals

AUTHORIZATION FOR USE OF FEDERAL LAND

(1) Overview

Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on federal lands require authorization from the land-managing agency. For most WSDOT projects, those agencies are the United States Forest Service (USFS), National Park Service (NPS), or the Bureau of Land Management (BLM). Use of state lands is authorized by the Washington State Department of Natural Resources (WDNR) (see Section 540.17, Easement over Public Land).

For activity on USFS land, WSDOT follows the procedures agreed to in the March 2002 Memorandum of Understanding with the USFS for coordinating transportation activities on National Forest system land. For rights-of-way, USFS agrees to use the standard USDOT easement deed. Outside the easement area, use or occupancy for other highway purposes requires a special use permit. Under these easement and permit use authorizations, USFS retains ownership of the land, and permits WSDOT certain rights of use and occupancy for a specific

use for a specific time. Normally, USFS land is not made available if the needs of the project can be met on nonfederal land.

For activity on NPS land, WSDOT applies for a right of way permit. When an application for a right-of-way is submitted, the superintendent establishes conditions, and documents of compliance with NEPA, NHPA, and other statutory requirements as appropriate. Due to the potentially high costs and values associated with rights-of-way, special attention is paid to fees and the recovery of a fair market value for use of the land. New rights-of-way are executed by the regional director; conversions from other authorizing documents, amendments, and renewals of existing rights-of-way may be signed by the superintendent. A right-of- way issued by the Park Service is considered temporary, and does not convey an interest in land.

For activity on BLM land, WSDOT applies for a right-of-way agreement, which authorizes rights and privileges for a specific use of the land for a specific time. It is typically granted for 30 years and may be renewed.

Agency Issuing Permit – U.S. Forest Service, National Park Service, or Bureau of Land Management

Statutory Authority – USFS lands, 36 CFR 251; National Park Service, 36 CFR 14; BLM lands, Public Lands Policy and Management Act, 43 USC 1761-1771 and 43 CFR Parts 2800 and 2880 (rights-of-way).

Regulated Activities

(a) Right-of-Way

The USFS grants *easement* and *special permit use authorizations* for road and utility rights-of-way, and any other short or long-term activity involving occupying, building on, or using public land.

Current NPS management policy is to terminate or phase out existing rights-of-way in wilderness areas. NPS does not issue any new rights-of-way or widen or extend any existing rights-of-way in wilderness areas.

The BLM issues *rights-of-way agreements* for uses such as roads, highways and transmission lines; and issues *leases*, *permits or easements* for purposes such as temporary or permanent facilities for commercial purposes (does not include mining claims), construction equipment storage sites, assembly yards.

(b) Mining Activities

For borrow pits, both the USFS and BLM issue special use permits that include standard requirements for use and restoration of the site following extraction of materials.

The NPS seeks to remove or extinguish valid mining claims and non-federal mineral interests in wilderness areas, through authorized means such as purchase of mining rights. No new roads or improvement of existing roads are approved unless documented as being necessary for resource protection. Any plan of operations that is approved must include

stipulations on operations and reclamation that ensure long-term effects on the wilderness area are substantially unnoticeable.

Exempt Activities – On BLM lands, authorization is not needed for "casual use" such as sampling, surveying, marking roots, collecting data or certain other uses that do not cause any appreciable disturbance or damage to the public lands, resources or improvements.

Geographic Extent – Federal land owned or managed by the USFS, NPS, or BLM.

Types of Permits – USFS authorization may be an easement or special use permit for activities outside the right-of-way.

The BLM may grant a right-of-way, lease, easement, permit, or license. The BLM requires a separate temporary use permit for construction activities outside the right-of-way such as stockpiling of excess materials, or parking of equipment; the temporary permit can be granted for up to three years.

The NPS does not issue any new rights-of-way or widen or extend any existing rights-of-way in wilderness.

Prerequisite Permits and Approvals – Proposed activities on USFS land must be consistent with federal, state, and local laws, regulations, and special orders that apply to the national forests. They must be consistent with the Forest Plan that establishes standards and guidelines for management of the land where the activity will take place (USFS). If a USFS borrow pit has been designated, but not or yet developed, additional NEPA documentation will be required.

All three federal agencies, USFS, NPS, and BLM, may require compliance with NEPA.

Related Permits and Approvals – Not applicable.

Interagency Agreements – The MOU between WSDOT and the USFS documents the agencies' agreement on coordinating transportation activities, particularly forest highways over National Forest lands. WSDOT and the USFS coordinate during planning and project scoping, develop a single set of environmental documents, and jointly seek public involvement. The agreement specifies procedures for requesting the easement or special use permit, conditions for amending the easement, and required communication before and during construction. It also covers WSDOT's responsibilities for maintenance and operations, including third party occupancy or use by public or private utilities. The MOU is online at:

http://www.fs.fed.us/im/directives/field/r6pnw/fsm/1500/1561_9b.doc

Processing Time – Depending on the nature of WSDOT's use (temporary or permanent) processing can take six months to several years.

Fees – The USFS may waive the rental fees for state agencies. State agencies are exempt from BLM application, processing, and rental fees.

(2) How to Apply

For projects on USFS land, request an application from the regional or district USFS office. Application information is also available online at:



For a right-of-way on BLM land, apply using Form 299, Application for Transportation and Utility Systems and Facilities on Federal Land. The form can be downloaded from the BLM Lands and Realty web site:



http://www.blm.gov/nhp/what/lands/realty/

Or by direct link:



http://www.nc.blm.gov/blmforms/forms/sf_forms/pdf/FormSF-299.pdf

The BLM recommends identifying potential needs for extra construction width or space at the time of the right-of-way application. Applying later for a temporary use permit may require separate environmental clearance and take additional processing time.

JARPA – Not applicable.

Pre-application Conference – Prior to submitting the proposal, USFS requires a pre-application meeting. A staff member will discuss the proposal, potential land use conflicts, application procedures and qualifications, probable time frames, fees and bonding requirements, additional coordination with other agencies, environmental reports, and field reviews. The BLM encourages holding a pre-application conference.

Special Information Requirements – In addition to the application, the USFS requires plans for environmental protection and rehabilitation during construction, maintenance, removal, and reclamation of the land; and a detailed USGS survey map, plat or equivalent. Alternatives on nonfederal land also must be included.

The BLM requires a plan of development that includes project description; road specifications; description of flagging and staking, clearing and grading, earthwork, and structural installation; plan for stabilization, rehabilitation and revegetation; and operation and maintenance; spill prevention and contingency plan; and temporary needs for space outside the right-of-way.

Public Notice - The USFS, NPS, and BLM provide public notice through their NEPA procedures.

Submitting the Application – Complete and submit the application form, including supporting documents. An incomplete proposal can delay the processing.

Submit USFS applications to the local USFS office. Contacts for national forests in Washington are at:



http://www.fs.fed.us/r6/r6nf.htm

Submit BLM right-of-way applications to:

Oregon/Washington Regional Office 1515 S.W. 5th Ave. P.O. Box 2965 Portland, OR 97208-2965

Phone: 503-952-6027

Agency and Public Review – USFS, NPS, and BLM regulations require that other public agencies and the public have an opportunity to review and comment on permit applications.

Appeal Process – The federal regulations for the BLM and USFS specify the appeal procedures for applicants when permits or right-of-way grants are denied.

Post-permitting Requirements - Not applicable.

(3) For More Information

Please see **Chapter 455**, Public Lands, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

The USFS web site includes information on special use permits, including information, brochures, contacts, and forms.



Click on Passes and Permits, then Special Use permits

Or by direct link:

http://www.fs.fed.us/recreation/permits/

BLM information can be accessed via the USFS site above.

Click on BLM Lands and Realty Page, then Land Use Authorizations – Leases and Permits or Rights-of-Way.

Or by direct link:

http://www.blm.gov/nhp/what/lands/realty/

NPS information can be accessed by direct link:

http://www.nps.gov/tuai/pphtml/documents.html

Specific information on NPS Management Policies addressing rights-of-way (See Chapter 6.4.8) and Mineral Development (See Chapter 6.4.9) issues can also be accessed by direct link:

http://www.nps.gov/policy/mp/chapter6.htm

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For additional assistance, contact the USFS national forest office where the project is located. Contacts are online at:

http://www.fs.fed.us/recreation/map/state_list.shtml#Washington

For BLM rights-of-way, contact the Spokane District office at:

1103 N. Fancher

Spokane, WA 99212-1275

Phone: 509-536-1200/fax: 509-536-1275, Spokane_Mail@or.blm.gov

Contact: John Styduhar – 503-808-6454

Portland BLM HQ – 503-808-6039 Spokane branch – 509-536-1200

For NPS information, contact the Pacific Northwest Region Office:

Regional Director Jon Jarvis National Park Service One Jackson Center 1111 Jackson Street Suite 700 Oakland, CA 94607 415-561-4700

(5) Information Last Updated

May 20, 2005.

NOTIFICATION OF WORK AFFECTING NAVIGABLE AIRSPACE

(1) Overview

Under federal aviation regulations (FAR) the FAA establishes standards and notification requirements for objects affecting navigable airspace. These objects include roadways, bridges, antenna towers, overhead communications lines and towers, and construction equipment. Notification allows the FAA to identify potential aeronautical hazards, and thus prevent or minimize adverse impacts to the safe and efficient use of navigable airspace.

Federal law also requires that reconstruction or relocation of any federally funded highway located within a two-mile radius of an airport facility must be coordinated with FAA to ensure that airway-highway clearances are adequate for the safe movement of air and highway traffic (see Section 460).

Agency Issuing Permit – FAA Air Traffic Division (off-airport proposals) and FAA Airports Division (on airport proposals).

Statutory Authority – 23 USC 318; 23 CFR 620; 49 USC Section 44718 and 14 CFR Part 77.

Regulated Activities – Objects that may affect navigable airspace are defined generally below. See FAR Part 77.13 for specifics.

- Any construction or alteration more than 200 feet in height above ground level.
- Any construction or alteration of greater height than an imaginary surface extending outward and upward at defined slopes in the vicinity of airports and heliports.
- Any highway, railroad, or other traverse way of a height (specified for interstate highways and other roadways) that would exceed these standards.
- Any construction or alteration that would be in an instrument approach area exceeding these standards.
- Any construction or alteration on a public use or military airport or heliport.

Exempt Activities – Construction or alteration not requiring notice include objects shielded by existing structures of greater height in congested areas of a city or town so it will not affect air safety; also any approved air navigation facility or device with fixed location and height, and construction or alteration for which other FAA notice is required (FAR Part 77.14).

Geographic Extent - State of Washington.

Types of Permits – Notification (proposed construction or alteration) and Supplemental Notice (advance notice of actual construction or alteration).

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Not applicable.

Interagency Agreements – None applicable.

Processing Time – FAA recommends allowing 60 days for the review process.

Fees –Not applicable.

(2) How to Apply

Notification of Proposed Construction or Alteration – Individuals or organizations proposing construction or alterations must submit FAA Form 7460-1, Notice of Proposed Construction or Alteration including pertinent information about the alteration and appropriate attachments showing the type and location of the alteration. This form, which includes instructions, lists of activities requiring and not requiring notice, and information about the form and time of notice, is available at:



Supplemental notice (advance notice of actual construction or alteration) – If advised by the FAA that supplemental notice is required, WSDOT must submit FAA Form 7460–2, to be received by the FAA regional office at least 48 hours before the start of the construction or alteration. The supplemental notice is available at:



JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Information needed for the FAA review includes the following:

- Scaled drawing showing location of alteration in relation to nearest runways.
- Perpendicular distance of the proposed alteration to the nearest runway centerlines.
- Distance along centerline (actual or extended) from runway end to the perpendicular intercept point.
- Ground elevation at the site of the proposed alteration.
- Height of the proposed alteration including antennas or other appurtenances.

- Accurate geodetic coordinates.
- Sketches or drawings showing the type of construction or alteration being proposed.

Proposals for electronic transmitting devices should include frequency, effective radiated power, radiation center height, and antenna characteristics such as number of bays, beam tilt, and null fill.

Public Notice - Published by the FAA if needed.

Submitting the Application – Submit four copies of the notice of proposed construction/alteration at least 30 days before the date a construction permit application is filed or before construction begins, whichever is earliest. Submit the supplemental notice at least 48 hours before the start of construction.

For projects not located on airport property, submit notifications to the FAA regional office:

Federal Aviation Administration Airspace Branch, ANM-520 1601 Lind Avenue S.W., Suite 330 Renton, WA 98055-4056

Phone: 425-227-2520

Agency and Public Review – The FAA will acknowledge receipt of the notice. Once the FAA has completed an aeronautical study, a determination is made regarding the impact to air navigation.

If further aeronautical study is initiated, public notice may be prepared and distributed for comments to those agencies, organizations, or individuals with known aeronautical interests to determine if the proposal would be a hazard to air navigation. State and local aviation authorities, and military authorities, are also offered the opportunity to comment on the aeronautical effects of the proposal.

If at any time during the aeronautical study, the proposed alteration is determined to be a hazard, the study is halted with no further consideration and an objectionable determination is issued.

One of three responses is typically issued:

- No Objection The subject construction does not exceed obstruction standards and marking/lighting is not required.
- Conditional Determination The proposed construction/alteration would be acceptable contingent upon implementing mitigating measures (e.g. marking and.)
- Objectionable The proposed construction/alteration is determined to be a
 hazard and is thus objectionable. The reasons for this determination are
 outlined to the proponent.

Appeal Process – WSDOT may petition the FAA Administrator for a review of the determination, revision, or extension decision within 30 days after the issue date of the decision.

Post-permitting Requirements – During construction, WSDOT is required to send an executed copy of FAA Form 117–1, Notice of Progress of Construction

or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

(3) For More Information

Please see **Chapter 460**, Transportation, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. An advisory circular with detailed specifications (Advisory Circular 70/7460-2K) is available online at:

http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircu lar.nsf/0/22990146db0931f186256c2a00721867/\$FILE/ac70-7460-2K.pdf

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For additional assistance, contact the FAA regional office environmental specialist in Renton, 425-227-2600.

(5) Information Last Updated May 20, 2005.

520.14 Exhibits

None.

530.01	Introduction
530.02	Treaty Rights
530.03	Federal Statutes
530.04	State Statutes
530.05	Tribal Law
530.06	For More Information
530.07	Permit Assistance
530.08	Exhibits

Key to Icon



Web site.*

530.01 Introduction

WSDOT has a unique relationship with tribes due to their special legal status, rights reserved through treaties, and cultural interests throughout the state. Tribes retain limited sovereignty rights that are guaranteed under treaties and federal laws. Each reservation in the state constitutes a bordering jurisdiction for state agencies. WSDOT actions outside reservations may affect tribes just as actions within the reservations may affect WSDOT.

A WSDOT executive order approved by the Washington Transportation Commission (February 2003) as part of its Centennial Accord Plan directs employees to consult with tribes on all decisions that may affect tribal rights and interests. Under the order, consultation is defined as "respectful, effective communication in a cooperative process that works toward a consensus, before a decision is made or an action is taken."

Consultation on a project can involve multiple tribal offices (planning, natural resources, cultural resources) at different stages in the life of a project. Federal recognition, treaties and court adjudicated rights differ among tribes in Washington and affect how they are consulted on WSDOT projects. Consultation ideally begins in the planning and programming phase and continues through scoping and design, with project-specific meetings to address any issues. Continued consultation may occur via project monitoring by the tribes during the construction and maintenance phases.

Chapter 530 identifies permits and approvals that may need to be obtained during the permitting and PS&E phase, with reference to details in other sections of the EPM. The chapter covers permits and approvals required by treaty rights, federal statutes, or tribal laws.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/.

530.02 Treaty Rights

Between 1853 and 1856 treaties were negotiated with tribes in the Washington Territory. In these treaties, tribes reserved a number of rights. Virtually all treaties negotiated in the territory included the "right of taking fish, at all usual and accustomed grounds and stations," which was "further secured to said Indians, in common with all citizens of the Territory." This phrase is at the heart of the tribal treaty fishing right, and has given rise to the important concept of "usual and accustomed areas" of the treaty tribes, or the so-called "U&A areas". These areas may extend beyond a tribe's reservation land and also apply to landless tribes. Supreme Court decisions and federal law have affirmed the continued validity of treaties. It is important to note, however that tribal areas of cultural interest for consultation are not limited U&A areas. For information on the location of "Usual and Accustomed" areas and "Areas of Cultural Interest" maps, contact the Environmental Services Office Tribal Liaison at:

http://www.wsdot.wa.gov/tribal

Many permits for WSDOT activities affecting tribal interests require tribal consultation before they can be approved. For example, in its review of applications for individual Section 404 permits, the U.S. Army Corps of Engineers, gives public notice to tribes whose "usual and accustomed" fishing and hunting grounds may be affected. Its decision on the permit, and/or permit conditions, may be influenced by tribal concerns and issues. For example, the Corps, bound by its federal trust responsibility, may require a project to address impacts to a tribal treaty fishing right before issuing a permit. Early consultation with potentially affected tribes is recommended to avoid delays in permitting.

530.03 Federal Statutes

This section includes permits and approvals which tribal governments, rather than a federal or state agency, may issue under federal statutes.

(1) Section 401 Water Quality Certification

On their reservations, the Puyallup and Chehalis tribes have authority to issue Section 401 Water Quality Certification, rather than Ecology. See Chapter 431 for background on water quality standards and documentation and Section 540.02 for Section 401 certification. Contact the tribe for information on how to apply. (See Exhibit 530-2.)

(2) Section 106 Consultation

Tribes have a required consultation role under Section 101 and 106 of the Historic Preservation Act. WSDOT must consult with tribes on project located within a tribe's Area of Cultural Interest. A Tribal Historic Preservation Office (THPO) can be established by the tribe and assert jurisdiction of the SHPO. The Makah, Skokomish, Squaxin Island, Lummi, Colville and Spokane tribes have THPOs. See Exhibit 530-2 for contact information.

WSDOT consults with non-federally recognized tribes as "additional consulting parties" per 36 CFR 800.2(c)(5).

Section 106 consultation usually occurs during the design/environmental review phase; see **Chapter 456** for background on Section 106. See **Section 520.10** for information on when need for Section 106 consultation may be needed during the permitting and PS&E phase.

(3) Archaeological Resources Protection Act Permit

Under federal statute, tribal governments issue this permit when the project or activity is on tribal land. See **Chapter 456** for background on cultural resources and **Section 520.05** for details on this permit and statutory authority. Contact the affected tribe(s) for details on how to apply. (See **Exhibit 530-2**.)

530.04 State Statutes

(1) Hydraulic Project Approval

On its reservation the Yakama Nation has the authority to issue Hydraulic Project Approvals instead of the Washington State Department of Fish and Wildlife. See Section 540.15 for information about this permit. Contact the Yakama Nation for details on how to apply. (See Exhibit 530-2).

(2) Other

None identified.

530.05 Tribal Law

On reservation land, tribal laws may require permits and approvals similar to those required by counties and cities and described in **Chapter 550**. These permits and approval are required when WSDOT works outside of the highway right-of-way on the adjacent reservation land. In cases where WSDOT has a permanent easement rather than ownership, the tribe retains jurisdiction to issue permits and approvals. Examples of permits that may apply include Tribal Environmental Policy Act (TEPA) determinations; critical areas approvals; clearing, grading, and building permits; land use approvals; noise variances; and utility permits. Contact the WSDOT Tribal Liaison for assistance in coordinating tribal permits on reservation land.

530.06 For More Information

WSDOT's Tribal Liaison's Office is a central resource for tribal access and problem solving. The Tribal Liaison's Office is preparing procedures on tribal consultation for the EPM. These will be included once they are completed. See the Tribal Liaison Office web site below for links to tribal treaties, relevant statutes, and WSDOT's Centennial Accord Plan.

http://www.wsdot.wa.gov/tribal/

The Centennial Accord Plan includes WSDOT's Executive Order 1025.00 on Tribal Consultation; a map showing the location of Indian reservations and landless tribes (**Exhibit 530-1**); and contact information for federally recognized and non-recognized tribes (**Exhibit 530-2**). The direct link is:

http://www.wsdot.wa.gov/tribal/Centennial Accord.htm

The Executive Order is at:

http://www.wsdot.wa.gov/NR/rdonlyres/847C3EC9-3373-41A7-ADBE-AC4D8E3F6ED6/0/ConsultationPolicy.pdf

Contacts:

Colleen Jollie, Director, Tribal Liaison Office PO Box 47318 Olympia, WA 98504

Telephone: 360-705-7025

Fax: 360-705-6888

Email: JollieC@wsdot.wa.gov

Megan Beeby, Environmental Services Tribal Liaison

PO Box 47331

Olympia, WA 98504 Telephone: 360-705-7494

Email: BeebyM@wsdot.wa.gov

530.07 Permit Assistance

Contact the tribal government for assistance with permits or approvals on projects that may affect tribal lands, "usual and accustomed" fishing and hunting grounds, or cultural resources. Contact information on federally recognized and non-recognized tribes, updated every six to eight months, is available on the Governor's Office of Indian Affairs web site:



Click on Directory.

Or by direct link:

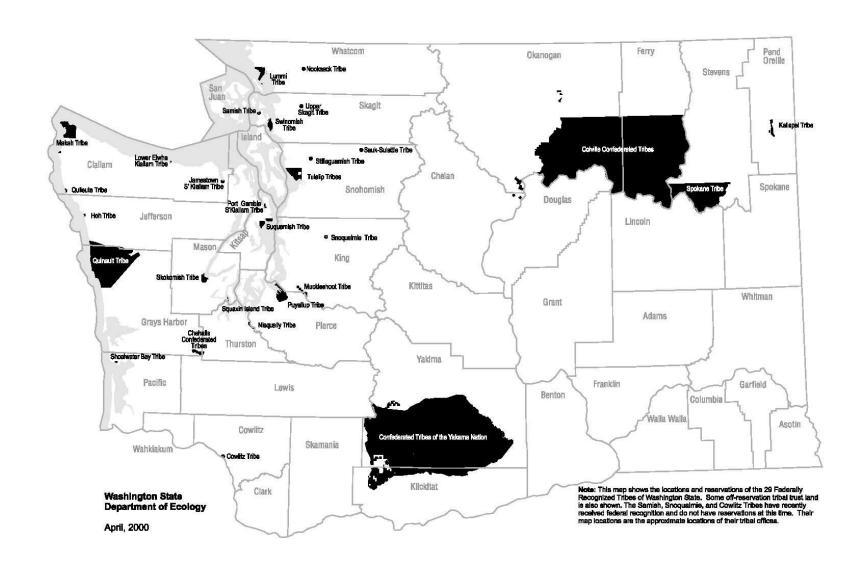
http://www.goia.wa.gov/Tribal-Information/Tribal-Information.htm

530.08 Exhibits

Exhibit 530-1 – Map showing tribal reservations and location of landless tribes.

Exhibit 530-2 – Contact information for federally recognized and non-recognized tribes.

Tribal Reservations and Location of Landless Tribes



Contact Information for Federally Recognized and Non-recognized Tribes

WASHINGTON STATE FEDERALLY RECOGNIZED INDIAN TRIBES

CHEHALIS CONFEDERATED TRIBES

The Honorable David Burnett, Chair

Chehalis Business Council

PO Box 536

Oakville, WA 98568

Ph: (360) 273-5911/753-3213

FAX: (360) 273-5914

County: Grays Harbor/Thurston

COLVILLE CONFEDERATED TRIBES

The Honorable Joseph A. Pakootas, Chair

Colville Business Council

PO Box 150

Nespelem, WA 99155 **Ph:** (509) 634-4711 **FAX:** (509) 634-4116 County: *Okanogan/Ferry*

COWLITZ INDIAN TRIBE

The Honorable John Barnett, Chair

Cowlitz Indian Tribe

PO Box 2547

Longview, WA 98632-8594

Ph: 360/ 577-8140 **FAX:** 360/ 577-7432 County: *Cowlit/Clark*

HOH TRIBE

The Honorable Mary Leitka, Chair Hoh Tribal Business Committee

2464 Lower Hoh Road Forks, WA 98331 **Ph:** (360) 374-6582 **FAX:** (360) 374-6549 County: *Jefferson*

JAMESTOWN S'KLALLAM TRIBE

The Honorable W. Ron Allen, Chair Jamestown S'Klallam Indian Tribe

1033 Old Blyn Highway Sequim, WA 98382 **Ph:** (360) 683-1109 **FAX:** (360) 681-4643 County: *Clallam*

KALISPEL TRIBE

The Honorable Glen Nenema, Chair Kalispel Business Committee

PO Box 39 Usk, WA 99180 **Ph:** (509) 445-1147 **FAX:** (509) 445-1705 County: *Pend Oreille*

LOWER ELWHA KLALLAM TRIBE

The Honorable Francis Charles, Chair Elwha Klallam Business Council

2851 Lower Elwha Road Port Angeles, WA 98363 **Ph:** (360) 452-8471

FAX: (360) 452-3428 County: *Clallam*

LUMMI NATION

The Honorable Darrel Hillaire, Chair

Lummi Business Council

2616 Kwina Road

Bellingham, WA 98226-9298

Ph: (360) 384-1489 **FAX:** (360) 380-1850 County: *Whatcom* **MAKAH TRIBE**

The Honorable Ben Johnson Jr, Chair

Makah Tribal Council

PO Box 115

Neah Bay, WA 98357 **Ph:** (360) 645-2201 **FAX:** (360) 645-2788 County: *Clallam*

MUCKLESHOOT TRIBE

The Honorable John Daniels Jr., Chair

Muckleshoot Tribal Council 39015 172nd Avenue SE Auburn, WA 98092 **Ph:** (253) 939-3311 **FAX:** (253) 939-5311

County: King

NISQUALLY TRIBE

The Honorable Dorian Sanchez, Chair

Nisqually Indian Tribe 4820 She-Nah-Num Drive SE

Olympia, WA 98513 **Ph:** (360) 456-5221 **FAX:** (360) 407-0125 County: *Thurston*

NOOKSACK TRIBE

The Honorable Narcisco Cunanan, Chair

Nooksack Indian Tribal Council

PO Box 157 Deming, WA 98244 **Ph:** (360) 592-5176 **FAX:** (360) 592-5721 County: *Whatcom*

WASHINGTON STATE FEDERALLY RECOGNIZED INDIAN TRIBES (continued)

PORT GAMBLE S'KLALLAM TRIBE

The Honorable Ronald Charles, Chair Port Gamble Business Committee 31912 Little Boston Road NE

Kingston, WA 98346 **Ph:** (360) 297-2646 **FAX:** (360) 297-7097

County: Kits

PUYALLUP TRIBE

The Honorable Herman Dillon, Chair

Puyallup Tribal Council 2002 East 28th Street Tacoma, WA 98404 **Ph:** (253) 573-7800 **FAX:** (253) 573-7929 County: *Pierce*

OUILEUTE TRIBE

The Honorable Russell Woodruff, Sr., Chair

Quileute Tribal Council

PO Box 279

La Push, WA 98350 **Ph:** (360) 374-6163 **FAX:** (360) 374-6311 County: *Clallam*

QUINAULT NATION

The Honorable Pearl Capoeman-Baller, Chair

Quinault Business Committee

PO Box 189

Taholah, WA 98587 **Ph:** (360) 276-8211 **FAX:** (360) 276-4191 County: *Grays Harbor*

SAMISH NATION

The Honorable Kenneth Hansen, Chair

Samish Tribe of Indians

PO Box 217

Anacortes, WA 98221 **Ph:** (360) 293-6404 **FAX:** (360) 299-0790 County: *Skagit*

SAUK-SUIATTLE TRIBE

The Honorable Jason L. Joseph, Chair

Sauk-Suiattle Indian Tribe 5318 Chief Brown Lane Darrington, WA 98241 **Ph:** (360) 436-0131 **FAX:** (360) 436-1511 County: *Skagit*

SHOALWATER BAY TRIBE

The Honorable Charlene Nelson, Chair

Shoalwater Bay Tribal Council

PO Box 130

Tokeland, WA 98590 **Ph:** (360) 267-6766 **FAX:** (360) 267-6778 County: *Pacific*

SKOKOMISH TRIBE

The Honorable Gordon James, Chair

Skokomish Tribal Council N. 80 Tribal Center Road Shelton, WA 98584 **Ph:** (360) 426-4232 **FAX:** (360) 877-5943 County: *Mason*

SNOOUALMIE TRIBE

The Honorable Joseph Mullen, Chair

Snoqualmie Tribe of Indians

PO Box 280

Carnation, WA 98014

Ph: (425) 333-6551 **or** (425) 222-6900 **FAX**: (425) 333-6727 **or** (425) 222-7798

County: King

SPOKANE TRIBE

The Honorable Warren Seyler, Chair Spokane Tribal Business Council

PO Box 100

Wellpinit, WA 99040 **Ph:** (509) 258-4581 **FAX:** (509) 258-9243 County: *Stevens*

WASHINGTON STATE FEDERALLY RECOGNIZED INDIAN TRIBES (continued)

SOUAXIN ISLAND TRIBE

The Honorable David Lopeman, Chair

Squaxin Island Tribal Council

SE 70 Squaxin Lane Shelton, WA 98584 **Ph:** (360) 426-9781 **FAX:** (360) 426-6577 County: *Mason*

STILLAGUAMISH TRIBE

The Honorable Shawn Yanity, Chair Stillaguamish Board of Directors 3439 Stoluckquamish Lane Arlington, WA 98223

Ph: (360) 652-7362 FAX: (360) 435-7689 County: *Snohomish*

SUQUAMISH TRIBE

The Honorable Bennie J. Armstrong, Chair

Suquamish Tribal Council

PO Box 498

Suquamish, WA 98392 **Ph:** (360) 598-3311 **FAX:** (360) 598-6295 County: *Kitsap*

SWINOMISH TRIBE

The Honorable Brian Cladoosby, Chair

Swinomish Indian Senate

PO Box 817

LaConner, WA 98257 **Ph:** (360) 466-3163 **FAX:** (360) 466-5309 County: *Skagit*

TULALIP TRIBES

The Honorable Stanley Jones Sr., Chair

Tulalip Board of Director 6700 Totem Beach Road Marysville, WA 98270-9694

Ph: (360) 651-4000 **FAX:** (360) 651-4032 County: *Snohomish*

UPPER SKAGIT TRIBE

The Honorable Marilyn Scott, Chair Upper Skagit Tribal Council 25944 Community Plaza Sedro Woolley, WA 98284

Ph: (360) 854-7000 **FAX:** (360) 854-7004 County: *Skagit*

YAKAMA NATION

The Honorable Jerry Meninick, Chair

Yakama Tribal Council

PO Box 151

Toppenish, WA 98948 **Ph:** (509) 865-5121 **FAX:** (509) 865-5528 County: *Yakima/Klickitat*

NON-WASHINGTON TRIBES WITH CEDED TERRITORIES IN WASHINGTON STATE

COEUR D'ALENE INDIAN TRIBE

The Honorable Ernie Stensgar, Chairman

Coeur d'Alene Indian Tribe

850 A Street. P.O. Box 408

Plummer, Idaho 83851 Phone: (208)686-1800 Fax: (208)686-1182

NEZ PERCE TRIBEThe Honorable Anthony Johnson, Chairman

Nez Perce Tribal Executive Committee

P.O. Box 305 Lapwai, ID 83540 Phone: (208) 843-2253 Fax: (208) 843-7354

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION

The Honorable Antone Minthorn, Chairman

Board of Trustees

PO Box 638, 73239 Confederated Way

Pendleton, OR 97801 Phone: (541) 276-3165 FAX: (541) 276-3095

CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION

The Honorable Garland Brunoe, Chairman

Warm Springs Tribal Council

1233 Veterans St.

Warm Springs, OR 97761 Phone: (541) 553-3333 Fax: (541) 553-1924

540.01	Introduction
540.02	Section 401 Water Quality Certification
540.03	Coastal Zone Management Consistency Certification
540.04	NPDES Construction Stormwater Permit (General and Individual)
540.05	NPDES Municipal Stormwater Permit (General)
540.06	NPDES Sand and Gravel Permit (General and Individual)
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540.08	Other NPDES Permits (Programmatic) – Routine WSDOT Programs
540.09	Reserved
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	Other Temporary Pollutant Sources
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	Water Right – New, Changed or Assigned
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540.26	Exhibits

Key to Icon



↑ Web site.*

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/.

540.01 Introduction

Chapter 540 includes permits and approvals granted or issued by state agencies. The most important and most frequently needed by WSDOT are permits issued by Ecology to regulate impacts on water quality. These include the Clean Water Act Section 401 certification and Section 402 National Pollution Discharge Elimination System (NPDES) permits. Ecology also authorizes temporary exceedance of water quality standards, through an Implementing Agreement with WSDOT, and regulates impacts to isolated wetlands through administrative orders.

Ecology regulates impacts on groundwater through its State Waste Discharge Permit program, used for onsite sewage systems, drywells, and discharge of reclaimed water; and its Underground Injection Control registration requirement.

Ecology is also responsible for certifying consistency of proposed projects with the federal Coastal Zone Management Act, and for regulating activities related to hazardous substances.

Two state agencies regulate impacts to state-owned resources. Activities potentially impacting aquatic resources are authorized by the Washington State Department of Fish and Wildlife (WDFW) through its Hydraulic Project Approval. Washington State Department of Natural Resources (WDNR) grants easements over state-owned land, approval for certain practices on state-owned forest land, permits for reclamation of surface mining operations, and permits for removal of survey monuments.

The Washington State Department of Health (DOH) is responsible for regulating onsite sewage facilities discharging 3,500 to 14,500 gallons per day (gpd) and for approving new water systems, either of which could be needed for new WSDOT maintenance facilities or Safety Rest Areas.

The Office of Archaeological and Historic Preservation (OAHP) issues permits for archaeological excavation and removal except on federal or tribal land.

Under the state Clean Air Act, regional air quality authorities (CAAs) issue permits for temporary emission of air pollutants from land clearing burns, asbestos demolition, and asphalt batching or rock crushing.

There are other state approvals that are rarely needed by WSDOT. Ecology issues water rights for withdrawal of surface or ground water, safety permits for work on dams, reservoir permits for impounding of water, and soil boring permits for geotechnical investigations. WDFW issues permits for beaver trapping on WSDOT property.

540.02 Section 401 Water Quality Certification

(1) Overview

The Clean Water Act requires federal permits for proposed projects that may result in a discharge of pollutants into waters of the U.S. Permit applicants are required to obtain a certification from the state in which the discharge originates that the discharge will comply with state water quality standards and other aquatic resource protection requirements. These include effluent limits, new source performance standards, and Total Maximum Daily Limits of pollutants. Section 401 Certification can cover both construction and operation of a

proposed project. Conditions of the Section 401 Certification become conditions of the federal permit or license, and are in effect for the same time period. However, since Ecology issues Section 401 Certifications as administrative orders under RCW 90.48, conditions may be included that apply to the project longer than the federal permit or license.

Ecology has prepared a schematic diagram illustrating the Section 401 Certification application and review process. The schematic is in **Exhibit 540-1** and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/401_Water_Quality_Cert.pdf

Agencies Issuing Certification – Washington State Department of Ecology issues certifications for discharges on all non-federal and non-tribal land. USEPA Region 10's Aquatic Resources Unit issues certifications on federal and tribal land except Chehalis and Puyallup tribal land (see Section 530.03 for Chehalis and Puyallup tribal certification).

Statutory Authority – Section 401 of the Clean Water Act (33 USC 1341); RCW 90.48; WAC 173-201A and 173-225.

Regulated Activities – Applications for a federal permit or license to conduct any activity that might result in discharge of a pollutant into waters of the U.S., including non-isolated wetlands. Pollutants include dredge or fill material as regulated under Section 404.

Exempt Activities – None.

Geographic Extent – State of Washington.

Types of Permits – Same as Section 404 General and Individual Permits (see Section 520.02). Ecology has already approved, denied, or partially denied certification for activities covered by certain Nationwide permits. If an NWP is approved, no further Section 401 certification is required. If a NWP is partially denied without prejudice, activities potentially covered by that NWP need an individual Section 401 certification or a letter of verification (LOV). If an NWP is denied without prejudice, an individual certification is required for all activities covered under that Nationwide permit.

Of the most common NWPs used by WSDOT, Ecology has taken the following actions:

- Approved: NWP 6 (Survey Activities), NWP 15 (USCG Approved Bridges), and NWP 19 (25 Cubic Yard Dredging).
- Partially denied without prejudice: NWP 3 (Maintenance), NWP 7 (Outfall Structures and Maintenance), NWP 13 (Bank Stabilization), 14 (Linear Transportation), NWP 18 (Minor Discharges), NWP 23 (Approved Categorical Exclusions), 27 (Stream and Wetland Restoration Activities), and NWP 33 (Temporary Construction, Access and Dewatering.
- Denied without prejudice: NWP 41 (Reshaping Existing Drainage Ditches), and NWP 43 (Stormwater Management Facilities).

The Chehalis and Puyallup tribes require individual certification for all NWPs and the USEPA requires individual 401 certification for essentially all NWPs in their jurisdiction.

Prerequisite Permits and Approvals – For a Nationwide permit, Ecology cannot issue a 401 action prior to the Corps issuing a Nationwide permit. If SEPA is required then it has to be complied with prior to the issuance of a 401 Certification. While they are not prerequisite Ecology prefers to have a copy of the HPA prior to issuing a 401 Certification.

Related Permits and Approvals – An individual Section 401 certification from Ecology, USEPA, Puyallup tribe or Chehalis tribe is required before individual federal permits or licenses can be issued by the Corps (Section 404 or Section 10 permits, see Section 520.02 and Section 520.03) or USCG (Section 9 permits, see Section 520.04). If the project is within any of Washington's 15 coastal counties, a Coastal Zone Management consistency determination is required (see Section 540.03). If the project will result in discharge of pollutants to surface water, an NPDES permit is required (see Section 540.04 to Section 540.08). Ecology also has the authority under state water quality laws to issue administrative orders for projects not requiring federal permits such as activities impacting isolated wetlands (see Section 540.13).

Interagency Agreements – The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, Implementing Agreements, and other Ecology Orders and approvals.

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards is designed to ensure that WSDOT activities are in compliance with state surface water quality standards through general and activity specific conditions. General conditions deal with concrete work, erosion control, spill response, and monitoring. Activity specific conditions address several categories of work that may effect surface water quality standards. This document is expected to be revised during the fall of 2005 and be renewed by the spring of 2006.

Both agreements are online at the WSDOT's ESO compliance web site or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/default.htm#interagency

Processing Time – For projects needing Individual permits, Section 401 certification requires a minimum 20 day public notice and up to one year to approve, condition, or deny; decisions usually take less than three months. Projects covered by Nationwide permits that have been partially denied may take a few days or weeks after receipt of the JARPA in order for Ecology to determine if an individual 401 Certification is needed or if a Letter of Verification (LOV) can be issued. LOVs usually take 30 days, but can take up to 180 days. If an individual 401 Certification is required Ecology has 180 days from the date of Ecology's public notice to make a 401 Certification decision.

Fees - None.

(2) How to Apply

WSDOT should notify Ecology early on when applying for a Section 404 Individual or Nationwide permit so Ecology 401 certification review can start prior to issuance of a Corps final permit decision. In those cases where Ecology has received an JARPA requesting a 401 Certification and a determination is made that an individual Section 401 Certification is needed, Ecology can move forward with issuing a 20 day public notice but will coordinate with the Corps of Engineers prior to issuing the notice.

JARPA – Nationwide and Individual 404 Permit applications and USCG Section 9 permits are submitted as part of JARPA, a system designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see Section 510.03). The application and other information is on Ecology's web site:



http://www.ecv.wa.gov/

Click on Services, then Permitting, then Environmental Permitting Services and under the heading Permit Applications, click on Joint Aquatic Resource Permit Application (JARPA).

Or by direct link:



http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:



http://www.one-stop-jarpa.org/

Pre-application Conference – Unless there are unusual water quality issues, WSDOT normally does not request a pre-application meeting only for Section 401 certification. For large projects, WSDOT frequently holds pre-application meetings that include all permitting agencies, including Ecology.

Special Information Requirements – If applicable to the project, mitigation plans, operation and maintenance plans, stormwater site plans, and restoration plans may be required. See Section 431.05 and Section 437.05 for guidance in preparing these plans.

Public Notice – Issued by the Corps or Ecology.

Submitting the Application – Submit the JARPA to the appropriate federal agency (i.e. Seattle District Corps and/or USCG), and to Ecology:

Washington State Department of Ecology Shorelands and Environmental Assistance Attn: 401 Policy Lead P.O. Box 47600 Olympia, WA 98504-7600

Agency and Public Review- For Section 404 permits, the Corps determines whether the project qualifies for coverage under a Nationwide permit or needs an Individual permit. If an Ecology Section 401 certification has been approved for the NWP, no further Ecology action is required and the Corps approves coverage under the NWP. For NWPs that have been partially denied, applications are

reviewed by Shoreline and Environmental Assistance staff at Ecology's headquarters. If the project meets the NWP Section 401 requirements, Ecology issues a Letter of Verification, the Corps issues the Section 404 permit, and the project can proceed.

For Individual Permits and NWPs requiring an individual Section 401 certification, the Corps or Ecology issues a public notice. The public has 30 days to submit comments for a Corps public notice and 20 days to submit comments for an Ecology public notice. The Corps and Ecology may issue a joint public notice with a 30 day comment period for those projects requiring individual permits from the two agencies. Ecology then has 180 days for NWPs and 360 days for Individual permits to make a decision on the Section 401 certification. Ecology's decision may be to approve, approve with conditions, or deny the certification.

Appeal Process – WSDOT or members of the public may appeal Section 401 decisions to the Pollution Control Hearings Board within 30 days of Ecology's decision. The case may not be heard for six months or more.

Post-permitting Requirements - An individual certification may contain conditions for submittal of water quality monitoring plan and TESC plan, and there are notification requirements for the preconstruction meeting, start of construction, and start of certain activities. If wetland mitigation is involved there may be conditions requiring submittal of an as-built report six months after completing construction of the wetland mitigation site and monitoring reports.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to Chapter 431, Water Quality/Surface Water; Chapter 432, Floodplain; Chapter 437, Wetlands; and Chapter 452, Coastal Areas and Shorelines; and Chapter 453, Wild and Scenic Rivers. For information on water quality procedures during construction see Section 620.04.

The Corps' Special Public Notice describes the relationship between Section 401 certification and Section 404 nationwide permits, and specifies which activities require Individual 401 certification. The notice can be accessed from:



http://www.wsdot.wa.gov/environment/

Click on Programmatic Permits, then Permitting Tools and Help, then Section 401 certification for 404 Nationwide Permits

Or by direct link



http://www.wsdot.wa.gov/environment/Programmatics/Section401.htm

The public notice and current Section 401 conditions for Nationwide permits, are on the Corps Seattle District web site:



http://www.nws.usace.army.mil/index.cfm

Click on Regulatory/Permits, Nationwide Permits, then 2002 NWPs Or by direct link:

http://www.nws.usace.army.mil/publicmenu/menu.cfm?sitename=reg&pagename=nwp_2002

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office Permit Program, Gregor Myhr, Manager, 360-705-7487, email MyhrG@wsdot.wa.gov; Water Quality Program, call Mike Stephens 360-570-6656, email StepheM@wsdot.wa.gov; or Richard Tveten, 360-570-6648, email tvetenr@wsdot.wa.gov. Technical assistance is also available from permit coordinators at Ecology regional offices, or Ecology's federal permit staff at headquarters.

The WSDOT/Corps Liaison team currently has three Regulatory Branch staff members, Kate Stenberg, Jack Kennedy, and Anne Robinson, with Sandra Manning as temporary staff. Their areas of responsibility and contact information are listed at:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT

For WSDOT projects, the Ecology Federal Permits Unit staff responsible for coordinating Nationwide 404 Permits, Section 401 Water Quality Certification, and Coastal Zone Management Consistency Determinations are:

Permanent:

- Sandra Manning, 360-407-6912, sman461@ecy.wa.gov
- Therese Swanson, (Terry) 360-407-6789 tswa461@ecy.wa.gov
- Lisa Rozmyn, 360-407-7032, lroz461@ecy.wa.gov
- Kerry Carroll, 360-407-7503, kstr461@ecy.wa.gov
- Penny Kelley, 360-407-7298, pkel461@ecy.wa.gov
- Penny Keys, 360-407-6927, pkey461@ecy.wa.gov

Temporary:

• Sandra Lange, 306-407-0273, slan461@ecy.wa.gov

Ecology's staff on the Multiple Agency Permitting (MAP) team for WSDOT projects is Rebecca Ponzio, 425-649-7000, rpon461@ecy.wa.gov.

(5) Information Last Updated

May 24, 2005.

540.03 Coastal Zone Management Consistency Certification

(1) Overview

The Coastal Zone Management Act (CZMA) encourages the appropriate development and protection of the nation's coastal and shoreline resources. CZM consistency certification is required within Washington's 15 coastal counties for projects with a federal nexus i.e., involving federal funding, federal licenses, permits or approvals, use of federal lands, or a federal program. A

federal agency cannot approve or fund any activity unless Ecology concurs that the project is consistent with the State's federally approved CZM program.

Under Washington's CZM Program, activities affecting any land use, water use, or natural resource of the coastal zone must comply with six laws, called "enforceable policies," four of which typically apply to transportation projects: SEPA, the state Shoreline Management Act, federal and state clean water acts, and federal and state clean air acts.

The federal consistency process allows the public, local governments, tribes, and State agencies an opportunity to influence federal actions likely to affect Washington's coastal resources or uses.

Ecology has prepared a schematic diagram illustrating the CZM consistency certification application and review process. The schematic is in **Exhibit 540-2** and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/ Coastal_Zone_Management_Schematic.pdf

Agency Issuing Certification – Washington State Department of Ecology.

Statutory Authority –U.S. Coastal Zone Management Act, 16 USC 1451 *et seq.*; CZM program regulations, 15 CFR 923; CZM federal consistency regulations, 15 CFR 930, particularly Subpart D, 930.50-930.66, activities requiring a federal permit or license; and the Washington Shoreline Management Act, RCW 90.58.

Regulated Activities – Three categories of activities trigger a coastal zone management consistency review, two of which may apply to WSDOT projects: activities that require federal approval and activities that use federal funding. If a WSDOT project falls into one of these categories and is either in the coastal zone or it impacts coastal resources, then federal consistency is required.

Geographic Extent – Washington State's coastal zone includes the 15 counties with saltwater shorelines (Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum, and Whatcom). It includes all lands and waters from the coastline seaward for three nautical miles. For areas adjacent to the ocean, the coastline is defined as the position of ordinary low water, and for inland marine waters, as the seaward limit of rivers, bays, estuaries, or Puget Sound.

Types of Permits – Only one type of approval is required.

Related Permits and Approvals – Permits requiring Ecology concurrence that the project is consistent with the CZM program include: State Shoreline Management Act permits (Chapter 90.58 RCW), Section 404 and Section 10 permits (see Section 520.02 and Section 520.03), Section 9 permit (see Section 520.04), Section 401 water quality certification (see Section 540.02), and NPDES permits (see Section 540.04 to Section 540.08).

Ecology has denied CZM consistency for the entire Corps Section 404 Nationwide Permit (NWP) program. As a result, any applicant for coverage under NWP used in a coastal county must meet CZM consistency requirements.

Where the activity requires a permit or approval under an enforceable policy of the CZM program, Ecology will not concur with CZM consistency until the SEPA requirements are met and the permit or exemption is approved. Federal agencies cannot approve their permits without Ecology CZM concurrence.

Interagency Agreements - None applicable.

Processing Time – For permit, license, or funding applications, Ecology has 180 days to render a decision. If Ecology does not respond, consistency is presumed.

(2) How to Apply

WSDOT completes the Certificate of Consistency form at the Corps Seattle District web site:

http://www.nws.usace.army.mil/publicmenu/DOCUMENTS/CERTIFICATION OF CONSISTENCY WITH CZM.doc

JARPA – WSDOT requests Ecology concurrence with its CZM certification as part of its Joint Aquatic Resources Permit Application (JARPA), which is designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see Section 510.03, JARPA). The application and other information is on Ecology's web site:

http://www.ecy.wa.gov/

Click on Services, then Permit Assistance Center, then Permit Applications, then Joint Aquatic Resource Permit Application (JARPA).

Or by direct link:

http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Pre-application Conference – Not applicable.

Special Information Requirements – The certification of consistency requires giving permit numbers and approval dates indicating compliance with the enforceable policies (e.g. SEPA status, and whether state shoreline, water quality or air quality permit is required, has been applied for, or received).

Public Notice – WSDOT must give public notice of the CZM certification except for Corps and USCG permits; for these permits, public notice is published by the federal agency. WSDOT's CZM notice can be combined with the notice required under one of the enforceable policies, such as a SEPA determination or a Shoreline Substantial Development permit. WSDOT must indicate on the CZM form how and when public notice was given.

Submitting the Application – For Corps Section 404 and Section 10 permits, WSDOT submits the JARPA and CZM certification to both Corps and Ecology. For all other federal permits, WSDOT submits the CZM certification to Ecology:

Department of Ecology Shorelands and Environmental Assistance Program: 300 Desmond Drive, SE Lacey, WA 98503

Agency and Public Review – Ecology reviews proposed projects for consistency with the enforceable policies of the CZM program. Ecology has six months from the receipt of the certification to concur, concur with conditions, or deny approval. If Ecology fails to act within six months, concurrence is presumed.

When public involvement occurs through other review processes, as for shoreline or Section 404 permits, no additional public involvement is required for CZM consistency. For projects where public involvement is not otherwise required, or for large, complex, and controversial projects, Ecology has developed a separate public involvement process. This involves public notice, a 21-day public comment period, and potentially a public meeting or hearing. Notification is sent to interested parties.

Appeal Process –An applicant may appeal Ecology's consistency decision within 30 days to the Secretary of Commerce in accordance with Title 15, Chapter IX, Part 930.125 CFR. No public appeal is available for CZM consistency, although related permit decisions may provide for public appeal.

(3) For More Information

Please see Chapter 452, Coastal Areas and Shorelines, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. For more on shoreline substantial development permits and other shoreline-related requirements, see Section 550.02.

Ecology's coastal zone management home page includes links to Washington's CZM Program document, a two page focus sheet summarizing the federal consistency procedures:

http://www.ecy.wa.gov/programs/sea/czm/index.html

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office Compliance Branch by contacting Gregor Myhr, Permit Program Manager, 360-705-7487 or MyhrG@wsdot.wa.gov.

For assistance from Ecology, contact Bev Huether, federal consistency coordinator at Shorelands Environmental Assistance Program, 360-407-7258, bhue461@ecy.wa.gov.

Contact information for the WSDOT/Corps Liaison team Regulatory Branch staff is listed at:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT

(5) Information Last Updated May 5, 2005.

540.04 NPDES Construction Stormwater Permit (General and Individual)

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under the Clean Water Act, Section 402. Ecology has been delegated by the U.S. Environmental Protection Agency (USEPA) to administer the program in Washington, and does so in conjunction with its <u>State Waste</u>

<u>Discharge Permit</u> program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The NPDES Construction Stormwater permit authorizes stormwater discharges to surface water, subject to permit conditions. These conditions require WSDOT to provide environmental protection through BMPs and wastewater treatment.

Ecology has prepared a schematic diagram illustrating the NPDES Construction Stormwater application and review process. The schematic is in **Exhibit 540-3** and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/ Construction_Stormwater_Coverage_Schematic.pdf

Agency Issuing Permit - Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – A construction stormwater permit is required for all soil disturbing activities (including grading, stump removal, and demolition) where construction activity will disturb one or more acres and will result in discharge of stormwater to a receiving water (e.g., wetland, creek, river, marine water, ditch, or estuary), and/or storm drains that discharge to a receiving water. Stormwater associated with construction support activities (e.g. off-site equipment staging yards, material storage areas, borrow areas, etc.) are also covered by this permit. Low risk sites which will disturb less than five acres can apply for an Erosivity Waiver.

Exempt Activities – Projects that do not include soil disturbing activities, such as pavement surfacing (Bridge deck seals, Grind/overly Asphalt Concrete Pavements (ACP) and Portland Concrete Cement Pavements (PCCP), Bituminous Surface Treatment (BST, or "Chip Seal" projects), and Safety improvement projects (such as replacement or installation of Jersey barrier, bridge-end attenuation, or guardrail) which do not extend beyond the existing pavement limits. Projects that will discharge all stormwater and non-stormwater to ground water, and have no point source discharge to surface water or a storm sewer system that drains to surface waters. Routine maintenance that is performed to maintain the original purpose of a facility.

Geographic Extent - State of Washington.

Types of Permits – There are two types of NPDES Construction Stormwater Permits: General and Individual. Ecology has issued WSDOT an NPDES and State Waste Discharge General Permit to Discharge Stormwater Associated with Construction. For large construction sites, WSDOT may be required to obtain an individual construction stormwater permit written specifically for the site.

The General Permit, covering construction sites one acre and larger, was reissued in November 2005.

New permit requirements include water quality monitoring. Chapter 6 of the Highway Runoff Manual provides guidance on monitoring. For construction activities where: (1) the stormwater discharge is to Section 303(d) listed waters and includes the pollutant for which the water body is listed, unless it can be documented that no water quality violation will occur; or (2) the discharge is to a

water body subject to a Total Maximum Daily Load (TMDL) determination, unless the discharge would be in compliance with the TMDL contact region environmental or HQ ESO for more information. The current Construction Stormwater General Permit(s) can be viewed for reference at:

http://www.ecy.wa.gov/

Click on Programs, then Water Quality, then Stormwater, then Construction Stormwater General Permit.

Or by direct link:



http://www.ecy.wa.gov/programs/wq/stormwater/construction/

The accompanying fact sheet, including details on Ecology's review process, explanation of permit conditions, and how to apply, is online at:



http://www.ecy.wa.gov/

Click on Programs, then Water Quality, then Stormwater, then Construction Stormwater General Permit, then Download Permit/Fact Sheet, then Construction Stormwater Fact Sheet.

Or by direct link:



http://www.ecy.wa.gov/programs/wq/stormwater/construction/cnst_fact_fin.pdf

Prerequisite Permits and Approvals - Adherence to the Revised Eastern and Western Washington Highway Runoff Manuals.

Related Permits and Approvals – The SEPA process must be complete and all SEPA appeals resolved before submitting the general stormwater permit application or publishing the public notice. If the SEPA appeal is related to environmental issues, Ecology will not process the application until the appeal has been resolved.

Submitting an application for coverage (Notice of Intent) under the Construction Stormwater General Permit constitutes application for a State Waste Discharge Permit, which is required for discharge of wastewater to groundwater or a publicly owned treatment facility (see Section 540.12).

The NPDES Municipal Stormwater General Permit applies to the operation and maintenance of WSDOT stormwater facilities within certain geographic areas (see **Section 540.05**).

If a construction site acquired by WSDOT is already covered by a Construction Stormwater General Permit, the permit may be transferred if the current owner is in compliance with the permit. The Transfer of Coverage form must be completed and accompanied with an updated permit application.

Interagency Agreements – The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, Implementing Agreements, and other Ecology Orders and approvals.

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards is designed to ensure that WSDOT activities are in compliance with state surface water quality standards through general and activity-specific conditions. General conditions deal with concrete work, erosion control, spill response, and monitoring. Activity-specific conditions address several categories of work that may effect surface water quality standards. This document is expected to be revised during fall 2005 and be renewed by spring 2006.

Both agreements are online at the WSDOT's ESO Compliance Program web site or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/default.htm#interagency

Please see Section 431.04 and Section 610.03 for other interagency agreements that may be relevant to the construction phase of the project.

Processing Time – The Notice of Intent (NOI) must be submitted on or before the date of the first public notice. Permit coverage is granted on the 31st day following the receipt by Ecology of the completed Notice of Intent.

Fees – Permit fees for fiscal year 2005 range from \$350 to \$925 depending on the number of disturbed acres.

(2) How to Apply

WSDOT and other applicants submit a single sheet Notice of Intent (NOI) requesting coverage under the general permit. Applicants are encouraged to use Ecology's internet-based electronic NOI to apply for permit coverage. Ecology's regional office staff determines whether an individual permit is needed.

Information and application forms for the NPDES Construction Stormwater General Permit is available online at:



http://www.ecy.wa.gov/

Click on Programs, then Water Quality, then Stormwater, then Construction Stormwater General Permit.

Or by direct link:



http://www.ecy.wa.gov/programs/wq/stormwater/construction/

JARPA - Not applicable.

Pre-application Conference – On large WSDOT projects, a pre-application conference is advisable for an early determination of whether an Individual Permit will be needed. Contact the regional Ecology office where the project is located.

Special Information Requirements – The permit requires a Stormwater Pollution Prevention Plan (SWPPP), identifying Best Management Practices (BMPs) to prevent surface water and groundwater pollution. For WSDOT, the SWPPP requirement is met by developing a Temporary Erosion and Sediment Control (TESC) Plan and a Spill Prevention Control and Countermeasures (SPCC) plan. For guidance on stormwater BMPs, see WSDOT's 2004 Highway Runoff Manual (M 31-16), described in Section 431.05.

If chemical treatment is being considered as a BMP for construction stormwater, please contact region environmental and HQ ESO.

Public Notice – For coverage under the *general permit*, the applicant must publish a public notice at least once a week for two consecutive weeks, with a 7-day time span between dates, in a newspaper of general circulation in the project area. The 30-day public comment period begins on the publication date of the second public notice. Public noticerequirements can be viewed online at:

http://www.ecy.wa.gov/programs/wq/stormwater/construction/

Make sure the information on the application and the information in the notice coincide, e.g., the owner's name and address, the total number of acres and acres to be disturbed, construction activity, temporary BMPs, the names of all receiving waters, and whether wetlands in the area have buffers.

Ecology must have the permit application during the public comment period in order to make it available to the application as required by WAC 173-226-130(5).

The public notice may be published simultaneously with other notices such as SEPA notices, and Shoreline Permit notices, provided the NOI is sent to Ecology on or before the date of the first public notice.

For the *individual permit*, Ecology publishes the public notice after receiving a complete application (see below, Agency and Public Review).

Submitting the Application – For the general permit, submit the NOI and public notice to Ecology before the date of the first public notice, and at least <u>60</u> days prior to the start of construction. Include a small-scale site map showing the points of stormwater discharge from the site. Issuance of the permit may be delayed if the application and public notice are incomplete or inadequate information has been provided.

The signed NOI and public notice may be sent by fax (360-407-6426), email (lmat461@ecy.wa.gov) or mail to:

Water Quality Program, Stormwater Unit PO Box 47696 Olympia, WA 98504-7696

Agency and Public Review – Within 30 days of the second public notice, interested parties may submit written comments to Ecology and may request a hearing. Ecology contacts WSDOT for a written response to these comments and usually requests that a copy of the <u>SWPPP</u> be included with the response.

Ecology may request a meeting with WSDOT to review the <u>SWPPP</u> and address any other questions or concerns. Ecology does not approve these plans, but provides technical assistance to help assure compliance with water quality standards and other requirements. Ecology may request WSDOT to revise the plans and resubmit them for further review. <u>The SWPPP, a copy of the General Permit, the permit coverage letter, and a Site Log Book are to be retained on site or within reasonable access to the site, and available to Ecology and local governmental agencies upon request. <u>Chapter 6 of the Highway Runoff Manual and Standard Specification 8-01.3(1)B provide guidance on what should be included in a Site Log Book.</u></u>

A NOI is not considered complete until the 30-day public notice requirement has been satisfied, the <u>SWPPP has</u> been developed, a final SEPA determination has been made, and all other NOI information has been supplied.

Unless Ecology responds to the complete application in writing, based on public comments, or any other relevant factors, coverage under the general permit will automatically commence on the 31st day following receipt by Ecology of a completed NOI.

If the permit is approved, Ecology publishes a notice of draft permit, allowing another 20 days for public comment.

Appeal Process – Permit decisions can be appealed to the Pollution Control Hearings Board (PCHB) within 30 days of receipt by WSDOT. The PCHB determination may be appealed to superior court. More information is online at:

http://www.eho.wa.gov/Documents/Pamphlet_PCHB.htm

Post-permitting Requirements – When all stormwater discharges from a construction site have been eliminated and the site has undergone final stabilization, WSDOT submits a Notice of Termination to the Ecology. Instructions and application are available online at:

http://www.ecy.wa.gov/biblio/ecy02087.html

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to Chapter 431, Water Quality/Surface Water; Chapter 432, Floodplain; Chapter 437, Wetlands; Chapter 452, Coastal Areas and Shorelines; and Chapter 453, Wild and Scenic Rivers. For information on water quality procedures during construction see Section 620.04.

Ecology's guidance document on applying for coverage under the Construction Stormwater General Permit is online at:

http://www.ecy.wa.gov/pubs/9937.pdf

Ecology's stormwater home page includes links to other technical information that may be useful for implementing the Stormwater Construction general permit.

http://www.ecy.wa.gov/programs/wg/stormwater/index.html

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office; call Mike Stephens at 360-570-6656, or email StepheM@wsdot.wa.gov.

For Ecology assistance with drafting the public notice or completing the application, contact Linda Matlock at 360-407-6437, lmat461@ecy.wa.gov.

(5) Information Last Updated May 5, 2005.

540.05 NPDES Municipal Stormwater Permit (General)

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by the U.S. Environmental Protection Agency (USEPA) to administer the program in Washington, and does so in conjunction with its' State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The NPDES Municipal Stormwater Permit authorizes stormwater discharges to surface water or groundwater from municipal storm sewer systems, i.e. systems operated by municipalities or public agencies like WSDOT.

WSDOT is required to obtain coverage under NPDES municipal stormwater permits to control stormwater discharges during construction and for the long-term operation and maintenance of its facilities. The permits cover WSDOT-operated municipal separate storm sewers that are located within permitted municipalities (those with separate storm sewer systems serving populations over 100,000).

These municipal permits are watershed specific. The permits authorize stormwater discharges into ground and surface waters during a five-year period. For other groundwater-related permits see Section 540.12 and Section 540.14.

WSDOT currently has coverage for four watershed areas: Island/Snohomish, Cedar/Green, South Puget Sound, and Columbia Gorge watersheds. When issued, Phase 2 NPDES Separate Storm Sewer System (MS4) permits, also known as Phase 2 permits, will add coverage for an additional 78 cities and eight counties statewide with populations over 10,000. WSDOT is currently considering with Ecology to establish one statewide permit to cover all Phase 1 and 2 areas, and a separate permit for WSDOT.

If these changes have taken effect, WSDOT will need only to apply for coverage under the WSDOT general permit.

The proposed/draft WSDOT NPDES Municipal Stormwater and State Waste Discharge General Permit is available online at:

http://www.wsdot.wa.gov/environment/wqec/docs/MS4NPDESSWPermitApplication.pdf

WSDOT's permit is scheduled to be issued in 2006. The proposed NPDES permit schedules for Eastern and Western Washington can be viewed at:

http://www.ecy.wa.gov/programs/wq/stormwater/general permits schedule.htm

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – WSDOT is required to obtain coverage under an NPDES municipal stormwater permit when construction activities and/or long-term

operation and maintenance of its facilities result in stormwater discharge to a municipal separate storm sewer system.

Discharges from agricultural runoff, irrigation return flows, process and non-process wastewaters from industrial activities, and stormwater runoff from areas served by combined sewer systems are not regulated directly by these permits. These types of discharges may be regulated by local or other state requirements if they discharge to municipal separate storm sewers. The municipal NPDES stormwater permits authorize the municipal separate storm sewer to discharge stormwater originating from industrial facilities. However, many industrial activities need an industrial stormwater NPDES permit issued by Ecology to discharge stormwater into municipal storm sewers (see Section 540.07, NPDES Industrial Stormwater General Permit).

Geographic Extent – WSDOT's current coverage includes four watershed areas: Island/Snohomish, Cedar/Green, South Puget Sound, and Columbia Gorge. WSDOT staff can view these watersheds using the WSDOT GIS Workbench. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

Under the statewide WSDOT general permit, the geographic extent will include areas covered by Phase I and II of the municipal stormwater permit program; i.e., any permitted municipality with a separate municipal storm sewer system serving populations greater than 100,000 (Phase I) or 10,000 (Phase II). Permit coverage maps may be viewed online at:

http://www.wsdot.wa.gov/environment/wgec/#NPDES

Types of Permits – The NPDES Municipal Stormwater Permit is a general permit covering categories of activities.

Related Permits and Approvals – Each municipal stormwater permit requires implementation of a Stormwater Management Program. The Stormwater Management Program is a plan for the term of the permit to reduce the discharge of pollutants, reduce impacts to receiving waters, eliminate illicit discharges, and make progress towards compliance with surface water, ground water and sediment standards. WSDOT is required to update its 1997 Stormwater Management Plan to qualify for coverage under the new statewide NPDES Municipal Stormwater Permit.

The NPDES Construction Stormwater General Permit applies to WSDOT projects from sites one acre or larger (see Section 540.04).

Interagency Agreements – See Section 540.04 and Section 431.04 for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – Not applicable.

(2) How to Apply

Individual projects are not required to apply for coverage under the general permit. Ecology issues the general permit to WSDOT and the permit is effective for five years. Projects that occur within the areas covered by the permit must

comply with the terms of the permit. In general, this requires adherence to WSDOT's 2004 Highway Runoff Manual which includes design standards for stormwater discharges.

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Additional requirements apply to projects that discharge to 303(d)-listed water bodies or water bodies for which Total Maximum Daily Loads (TMDL) have been developed. Guidance for how to address common additional requirements is included in the 2004 Highway Runoff Manual.

The current 303(d) list and TMDL data is available through the WSDOT internal GIS library:

W:\Data\GIS\GISOSC\GEODATA

For a list of current data sets, see WSDOT's environmental web site:



http://www.wsdot.wa.gov/environment/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:



http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

The data is stored by: watercourses (rivers and streams), water bodies (lakes), and estuaries. Use the GIS to determine the impairment parameters of a particular water body. Use the Environmental GIS Workbench to review the 303(d)-listed waterbodies themes through the water quality section. Use the related parameter tables to view all impairments or query all features for a given parameter (the tables are already cross-linked).

Information about 303(d)-listed water bodies and water bodies that have TMDLs is also available on Ecology's web site at:



http://www.ecv.wa.gov/programs/wg/links/impaired_wtrs.html

and



http://www.ecy.wa.gov/programs/wg/tmdl/index.html

Public Notice - Ecology issues public notice at the time WSDOT applies for coverage under the general permit. Once the permit is issued and coverage is approved, individual projects do not require public notice.

Submitting the Application – Not applicable.

Agency and Public Review – Not applicable to individual projects.

Appeal Process – Not applicable to individual projects.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to Chapter 431, Water Quality/Surface

Water; Chapter 432, Floodplain; Chapter 437, Wetlands; Chapter 452, Coastal Areas and Shorelines; and Chapter 453, Wild and Scenic Rivers. For information on water quality procedures during construction see Section 620.04.

More information from Ecology about Municipal Stormwater Permits is online

$\begin{tabular}{ll} \label{tab:proprograms/wq/stormwater/municipal/index.html} \end{tabular}$

For more information on WSDOT's stormwater management program, including the application submitted to Ecology for the statewide stormwater permit in March 2003, NPDES Annual Progress Reports, and WSDOT's revised *Highway* Runoff Manual, see:

ttp://www.wsdot.wa.gov/environment/wqec/#NPDES

WSDOT Highway Runoff Manual - WSDOT's 2004 Highway Runoff Manual includes design standards for stormwater discharges (see Section 431.05).

(4) Permit Assistance

For assistance in obtaining coverage under WSDOT's municipal stormwater general permit, contact Larry Schaffner, 360-570-6657, SchaffL@wsdot.wa.gov.

For individual project questions, contact Richard Tveten, 360-705-6648, TvetenR@wsdot.wa.gov.

(5) Information Last Updated May 31, 2005.

540.06 NPDES Sand and Gravel Permit (General and Individual)

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by the U.S. Environmental Protection Agency (USEPA) to administer the program in Washington and does so in conjunction with its State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The NPDES Sand and Gravel permit authorizes the discharge of pollutants from sand and gravel mining operations and related facilities into surface water and groundwater subject to permit conditions. These conditions require WSDOT to provide environmental protection through BMPs and wastewater treatment.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities - Ecology regulates a variety of sand and gravel related activities based on the Standard Industrial Classification Code (SIC). The most relevant SIC categories for WSDOT are:

1442 Construction Sand and Gravel 2951 Asphalt Paving Mixtures and Blocks 3273 Ready-Mixed Concrete

An application for coverage under the general permit should be submitted for any proposed WSDOT facility that falls within the covered activities (SIC codes). Facilities that are ineligible for coverage under the general permit typically require an individual permit.

Geographic Extent – State of Washington.

Types of Permits – There are two types of permits, General and Individual. Ecology has re-issued the NPDES and State Waste Discharge Sand and Gravel General Permit, effective February 5, 2005. This general permit provides coverage for discharges of process water, stormwater, and mine dewatering water associated with sand and gravel operations, rock quarries and similar mining activities, including stockpiles of mined materials, concrete batch operations, and hot-mix asphalt operations.

The sand and gravel general permit now provides coverage for a portable facility, the most common type of WSDOT activity subject to the permit. Portable facilities include concrete batch plants, asphalt batch plants, and rock crushers that conduct operations at one site for less than a year. A six-month extension is available. Portable sites must comply with the same permit conditions as permanent sites.

The permit sets a pH limit for ground water discharges and limits turbidity, total suspended solids, and pH in surface water discharges. The permit also includes monitoring of total dissolved solids in discharges of process water from concrete batch operations. The permittee is required to monitor the temperature of discharges to surface water during the summer months. Details on the permit limits and monitoring can be found at Ecology's web site at:



The General NPDES Sand and Gravel Permits are issued in five year increments, and require a renewal process to be implemented for each specific WSDOT owned site.

Prerequisite Permits and Approvals – Aggregate Source Approval from WSDOT HQ Materials Lab to verify the quality of the source; Surface Mining Permit, issued by Washington State Department of Natural Resources (WDNR), and Section 106 requirement concurrence from FHWA, State Office of Historic Preservation (SHPO), and affected Tribal governments.

Related Permits and Approvals – Permit coverage cannot be issued to a new facility or modified for an existing facility unless applicable SEPA requirements have been satisfied. The SEPA process must be complete and all SEPA appeals resolved before submitting the General Permit application or publishing the public notice. If a SEPA appeal is related to environmental issues, Ecology will not process the application until the appeal has been resolved.

Submitting an application for coverage under the Sand and Gravel General Permit constitutes application for a State Waste Discharge Permit, which is required for discharge of wastewater to groundwater or a publicly owned treatment facility (see Section 540.12).

If a construction site acquired by WSDOT is already covered by a Sand and Gravel General Permit, the permit may be transferred if the current owner is in

compliance with the permit. The Transfer of Permit Ownership form must be completed and accompanied with an updated permit application. The form is available online at:

http://www.ecy.wa.gov/pubs/ecy07032.pdf

Interagency Agreements – See Section 540.04 and Section 431.04 for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – Applications should be submitted at least 180 days before beginning operations that may result in discharge of a pollutant. Ecology generally notifies applicants of their status within 30 days of receiving the application.

Fees – Ecology has a "Quantity related" fee structure, plus \$1,200 activation and \$60 deactivation fees prorated on a yearly basis; WDNR has a \$1,000/year Surface Mining Permit fee.

(2) How to Apply

WSDOT normally applies for coverage under the General Permit. Ecology's regional office staff determines whether an individual permit is needed. There is a separate application form for portable facilities like portable asphalt, portable concrete, and portable rock crushing applications. A revised application for coverage must be submitted when a permit modification is required.

A downloadable application, instructions and other relevant forms are available online at:



Click on Programs, then Water Quality, then Stormwater, then Sand and Gravel General Permit, then Download Documents.

Or by direct link:

http://www.ecy.wa.gov/programs/wq/sand/dwnload.html#App%20Reg *JARPA* – Not applicable.

Pre-application Conference – A pre-application conference is advisable if an Individual permit may be needed. To arrange a conference or obtain other assistance, contact the permit coordinator at the regional Ecology office where the project is located.

Special Information Requirements – The sand and gravel general permit requires a monitoring plan, Stormwater Pollution Prevention Plan (SWPPP), a Temporary Erosion and Sediment Control (TESC) plan, and a spill plan. These planning documents must also be completed for portable facilities. For WSDOT, the SWPPP requirement is met by developing a Stormwater Site Plan (SSP). For guidance on stormwater Best Management Practices (BMPs), see WSDOT's 2004 *Highway Runoff Manual* (M 31-16), described in Section 431.05.

The application requires identifying any designated Critical Aquifer Recharge Area, Wellhead Protection Area or Sole Source Aquifer affected by the

operation. This information is available from the local jurisdiction, regional Ecology office, or USEPA Region 10 office.

Include with the application a small-scale site map showing the points of stormwater discharge from the site.

Public Notice – The applicant prepares the public notice, which is published by Ecology.

Submitting the Application – Submit the Notice of Intent (NOI) and public notice to the Ecology regional office for the county in which the project occurs. See Ecology's web site for addresses of the regional offices.

Agency and Public Review – Public notice of application is required for new facilities or existing facilities planning a significant process change. Ecology publishes this notice once a week for two consecutive weeks in a newspaper of general distribution in the project area. For individual permits the notice is published after receipt of a complete application.

The notice of application gives the public 30 days for comment. For individual permits, Ecology also publishes a notice that the draft permit has been issued, allowing another 20 days for public comment.

Appeal Process – Permit decisions can be appealed to the Pollution Control Hearings Board (PCHB) within 30 days of receipt by WSDOT. The PCHB determination may be appealed to superior court. More information is online at:



Post-permitting Requirements – Ultimate reclamation of the site is required for termination of the WDNR Surface Mining Permit, followed by termination of the NPDES permit held for that specific site

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to Chapter 431, Water Quality/Surface Water; Chapter 432, Floodplain; Chapter 437, Wetlands; Chapter 452, Coastal Areas and Shorelines; and Chapter 453, Wild and Scenic Rivers. For information on water quality procedures during construction see Section 620.04.

Guidance on the Sand and Gravel General Permit, including the current general permit and downloadable application forms, is available online at:



Click on Programs, then Water Quality, then Stormwater, then Sand and Gravel General Permit

Or by direct link:

http://www.ecy.wa.gov/programs/wq/sand/index.html

Ecology's stormwater homepage includes links to other technical information that may be useful for implementing the sand and gravel general permit.

http://www.ecy.wa.gov/programs/wq/stormwater/index.html

For other information, please see references in **Section 540.04**, Construction Stormwater Permit.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For additional assistance, contact Doug Pierce, WSDOT Maintenance Director, 360-705-7812, PierceDL@wsdot.wa.gov.

For general questions about the Sand and Gravel General Permit, please contact Jeff Killelea at 360-407-6127 or jkil461@ecy.wa.gov. For site-related issues, contact the Ecology regional office where the proposed project is located. See Ecology's web site for a list of regional contact people.

(5) Information Last Updated May 4, 2005.

540.07 NPDES Industrial Stormwater Permit (General)

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by U.S. Environmental Protection Agency (USEPA) to administer the program in Washington and does so in conjunction with its <u>State Waste</u> <u>Discharge Permit program</u>. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The Industrial Stormwater General permit authorizes discharges to surface water or a storm sewer from certain types of industrial facilities.

Ecology has prepared a schematic diagram illustrating the Industrial Stormwater General Permit application and review process. The schematic is in **Exhibit 540-4** and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/ Industrial_Stormwater_Schematic.pdf

Agency Issuing Permit - Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – The industrial stormwater general permit applies to stormwater runoff or discharges to surface water and/or storm drains from facilities listed on Ecology's Application Instructions, available online at:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/app_instr_10-02.pdf

Exempt Activities – No permit is required if all the stormwater from WSDOT's facility discharges to ground and/or to a combined storm/sanitary sewer.

Facilities that have no industrial activities or materials exposed to stormwater may be eligible for a "conditional no exposure certificate." To apply, use Ecology's electronic applications system accessed at:

Geographic Extent - State of Washington.

Types of Permits – Ecology has issued an NPDES and State Waste Discharge General Permit to Discharge Stormwater Associated with Industrial Activity for industries having specific Standard Industrial Classification (SIC) codes. The most relevant SIC categories for WSDOT are transportation facilities which have vehicle maintenance shops, including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication, and water transportation. Coverage under the Industrial Stormwater General permit is required for WSDOT ferry facilities that provide fueled vehicles to remove stalled vehicles from docks. The Washington State Ferry maintenance facility at Eagle Harbor is covered by this permit.

Permits typically place limits on the quantity and concentration of pollutants that may be discharged. Some limits are set by regulation while others may be set on a case-by-case basis. Permits may also require operational conditions called Best Management Practices (BMPs). To ensure compliance with these limits and conditions, permits require monitoring and reporting.

Related Permits and Approvals – Submitting an application for coverage under the Industrial Stormwater General Permit constitutes application for a State Waste Discharge Permit, which is required if the facility discharges wastewater to groundwater or a publicly owned treatment facility (see Section 540.12).

Interagency Agreements – See Section 540.04 and Section 431.04 for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – There is a 30-day public review of the notice of application.

(2) How to Apply

The Notice of Intent (NOI) for coverage under the Industrial General Stormwater Permit can be downloaded from:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/app_05-03.pdf

JARPA – Not applicable.

Pre-application Conference – Not applicable with the NOI.

Special Information Requirements – The general stormwater permit requires operators of industrial facilities to develop a Stormwater Pollution Prevention Plan (SWPPP). These plans should identify existing and potential sources of stormwater pollution, and describe how the operator will reduce or eliminate that pollution.

Include a site map with the SWPPP showing the discharge locations from the property.

Most facilities will request a mixing zone. A mixing zone will only be allowed for pollutants not covered by a 303(d) listed water body. Certain conditions must be met before Ecology will approve a mixing zone. Please see the application instructions on Ecology's web site at:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/app_instr_10-02.pdf

Public Notice – For coverage under the general permit, the applicant must publish the public notice once each week for two consecutive weeks, at least seven days apart, in a newspaper of general circulation within the county in which the discharge is proposed. Ecology no longer requires submittal of the affidavit of publication. WSDOT must instead provide the dates that the first and second public notices will appear and the name of the newspaper which will run the public notices. A copy of the notice to be published must also be submitted along with the NOI.

The public notice may be published simultaneously with other notices such as State Environmental Policy Act notices, and Shoreline Permit notices provided the NOI is sent to Ecology on or before the date of the first public notice.

Submitting the Application – Submit the NOI or application for an individual permit:

Washington State Department of Ecology Water Quality Program – Industrial Stormwater PO Box 47696 Olympia, WA 98504-7696

Agency and Public Review – For general permits, the public has up to 30 days after the second publication to comment on the proposal or request a hearing. Permit coverage will not be granted sooner than 31 days from the date of the second public notice. Applicants are notified as to coverage under the permit within 30 days of completing the application requirements. If the applicant does not receive notification from Ecology, coverage under the permit automatically commences on the 31st day following receipt by Ecology of a completed NOI.

Appeal Process – Permit decisions can be appealed to the Pollution Control Hearings Board within 30 days of receipt by WSDOT. The PCHB determination may be appealed to superior court. More information is online at:

http://www.eho.wa.gov/Documents/Pamphlet_PCHB.htm

(3) For More Information

Ecology has a manual, entitled *Stormwater Pollution Prevention Planning for Industrial Facilities*, to help industries develop stormwater pollution prevention plans. This document guides facility operators through the process of developing a plan, and includes descriptions of practices that may be required at a facility. For a copy of the guidance document, call the Ecology request line at 360-407-7156.

Further information on the Industrial Stormwater general permit is online at:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html#Download

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 431**, Water Quality/Surface Water; **Chapter 432**, Floodplain; **Chapter 437**, Wetlands; **Chapter 452**, Coastal

Areas and Shorelines; and Chapter 453, Wild and Scenic Rivers. For information on water quality procedures during construction see Section 620.04.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office; call Gregor Myhr, Permit Program Manager, 360-705-7487 or MyhrG@wsdot.wa.gov. For assistance from Ecology, contact Joyce Smith, 360-407-6858, josm461@ecy.wa.gov.

(5) Information Last Updated May 4, 2005.

540.08 Other NPDES Permits (Programmatic) – Routine WSDOT Programs

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by U.S. Environmental Protection Agency (USEPA) to administer the program in Washington and does so in conjunction with its State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state.

Ecology has issued four NPDES programmatic permits applicable to WSDOT. Three of the permits are issued as general permits and one is issued as an individual industrial permit. They authorize pollutant discharges to surface waters for certain activities, subject to specific permit conditions. These permits cover the following WSDOT maintenance activities: washing and painting of bridges and ferry terminals; nuisance aquatic plant and algae control, noxious aquatic plant control, and aquatic mosquito control.

These permits are reissued annually or every five years; otherwise no application is necessary. However, each permit has specific notification and reporting requirements for which WSDOT staff are responsible.

Agency Issuing Permit - Washington State Department of Ecology

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123, and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – Activities regulated by the programmatic permits are:

- Washing and painting of bridges and ferry terminals Includes discharges from low pressure maintenance washing and high pressure washing in preparation for painting of bridges and ferry terminals. For maintenance washing and preparation washing, the permits include specific timing restrictions, which differ between Eastern and Western Washington.
- Nuisance aquatic plant and algae control Activities that discharge
 herbicides or algaecides directly or indirectly into surface waters of the
 state; also activities that control algae indirectly through addition of
 aluminum sulfate to control phosphorus. "Indirect application" means
 application of glyphosate to emergent vegetation for control of nuisance or

noxious vegetation along public highways or in constructed or mitigated wetlands containing wetted surface at the time of the application, or which will contain wetted surfaces during the life of the active component of the herbicide.

- Noxious aquatic plant control Noxious and quarantine-list weed control
 activities that discharge herbicides directly into waters of the state,
 including water bodies that are contiguous with rivers, creeks, and lakes, or
 into navigable waters, or other situations determined by Ecology.
- Aquatic mosquito control All mosquito control activities that discharge insecticides directly into surface waters of the state; and pre-adult life stage pesticide activities discharging into water bodies listed above.

Exempt Activities – Weed control activities with herbicides conducted on seasonally dry land surfaces where the bio-available active ingredient does not persist at the time of water return are not required to be covered under these permits.

Geographic Extent – State of Washington.

Types of Permits – An NPDES Individual Industrial Permit was issued to WSDOT for washing and painting of bridges and ferry terminals. The other three are statewide NPDES General Permits, under which WSDOT has coverage. The noxious weed permit is issued to the Washington State Department of Agriculture and the mosquito control permit is issued to the Washington State Department of Health. In turn, the agencies administer the permits and annually extend permit coverage to third party applicants such as WSDOT. Each year, WSDOT applies to the Departments of Agriculture and Health, respectively, for coverage under the noxious weed and mosquito control permits. The activities currently covered under the three general permits may be included in a new WSDOT Statewide General Permit for Stormwater. For the current status, see:

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/issue_permits.html#draft_permits

Prerequisite Permits and Approvals - Not applicable.

Related Permits and Approvals – For overwater bridge and ferry terminal washing and pre-painting activities covered by WSDOT's NPDES permit, the conditions of WDFW's HPA programmatic permit for bridge and ferry terminal cleaning, painting and general maintenance and repair also apply (see **Section 540.15**). Specific guidance for each permit is on the WSDOT ESO web site (see For More Information below) and conditions are in the HPA programmatic permit appendices:

- Bridge Maintenance Washing and Cleaning Appendix B
- Ferry Terminal Washing, Cleaning and Marine Growth Removal Appendix F
- Bridge Paint-Prep Washing and Blasting Appendix C
- Ferry Terminal Paint-Prep Washing and Blasting Appendix G

Ferry terminal paint-prep washing and abrasive blasting is exempt from Department of the Army (Corps) Section 404 and Section 10 permit requirements. The other activities authorized by WSDOT's NPDES Industrial Permit may be subject to other federal, state, and local laws.

Under the Talent decision, the courts have expanded Section 404 jurisdiction to include roadside ditches that are tributaries to waters of the U.S. (see Section 520.02). This may affect application of aquatic herbicides to roadside ditches for control of mosquitoes or noxious or nuisance aquatic plants. WSDOT's Environmental Services Office is monitoring the application of the Talent Ruling and details of how it applies to WSDOT activities may be found at:

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WSDOT employees applying pesticides or herbicides for control of mosquitoes, or noxious or nuisance aquatic plants, are required to have a current operator's license with an aquatic endorsement. Applicator licenses and endorsements are verified by the Department of Agriculture in December of each year. Newly licensed or employed staff must submit their applicator license information to agriculture prior to spraying aquatic pesticides. Contact the ESO (see Permit Assistance below) for help in submitting licenses information to Agriculture during the year.

WSDOT contractors are not covered under the herbicide and pesticide programmatic permits and must obtain their own permit coverage.

Interagency Agreements – See Section 540.04 and Section 431.04 for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

The 1993 Implementing Agreement between WSDOT and Ecology on hazardous waste management includes procedures for emergency spills of hazardous substances (see Section 447.04).

For control of noxious weeds, WSDOT has agreed to work with Conservation Districts through County Weed Control Boards or appropriate county officials, under a 1982 Memorandum of Understanding with the Washington State Conservation Commission (see Section 454.04).

Processing Time – Not applicable. WSDOT has already received coverage for the general permits and has been issued the industrial permit.

Fees - None.

(2) How to Apply

The NPDES permits listed above have already been issued to WSDOT so no application is necessary for the specific activities covered by these permits. However, each permit has notification and reporting requirements (see below, Post-Permitting Requirements).

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Not applicable.

Public Notice – Not applicable.

Submitting the Application – Not applicable.

Agency and Public Review - Not applicable.

Appeal Process – Not applicable.

Post-permitting Requirements – Permit coordinators getting work covered under the programmatic permit are responsible for reviewing copies of the permit, conditions, and guidance (available online, see below, For More Information). Notification and reporting requirements are specific to each permit. For details, see the permit documents and WSDOT guidance referenced below.

Notification requirements may include notifying resource agencies prior to the activity covered by these permits and/or posting at the site for spraying activities. Compliance reports must be filled in after project completion; these are compiled annually by WSDOT Regional Environmental Offices and submitted to Maintenance and Operations Environmental staff at headquarters.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to Chapter 431, Water Quality/Surface Water; Chapter 432, Floodplain; Chapter 437, Wetlands; Chapter 452, Coastal Areas and Shorelines; and Chapter 453, Wild and Scenic Rivers. For information on water quality procedures during construction see Section 620.04.

WSDOT's ESO web site has links to the NPDES and HPA programmatic permits, with conditions, fact sheets and other guidance specific to each permit, and a copy of the Programmatic Permit Reporting Form:



Click on Programmatic Permits, then links for NPDES or HPA permits.

Or by direct link:



(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For general questions on programmatic permits, contact Joel Gjuka, ESO Compliance Branch, programmatic permits, 360-705-7490, GjukaJo@wsdot.wa.gov; or Gregor Myhr, ESO Permit Program Manager, 360-705-7487, MyhrG@wsdot.wa.gov.

For reporting questions, contact: Kojo Fordjour, Washington State Ferries Permitting and Environmental Manager, bridge and ferry terminal washing, 206-515-3650; Ray Willard, Maintenance and Operations Environmental Office, 360-705-7865, nuisance and noxious plants; and Norm Payton, HQ Maintenance, 360-705-7848, mosquito control.

(5) Information Last Updated May 24, 2005.

- 540.09 Reserved
- 540.10 Reserved
- 540.11 Reserved

540.12 State Waste Discharge Permit

(1) Overview

A State Waste Discharge Permit (SWDP) is required for discharges of industrial wastewater to land (potential impact on groundwater) or to a municipal waste treatment facility; and discharges of domestic sewage over 14,500 gallons per day (gpd) to groundwater.

SWDPs typically place limits on the quantity and concentration of pollutants that may be discharged. Some limits are set by regulation while others may be set on a case-by-case basis. Permits may also require BMPs as operational conditions. To ensure compliance with these limits and conditions, permits require monitoring and reporting. Most permits have a five-year life span.

Ecology has prepared a schematic diagram illustrating the State Waste Discharge Permit application and review process. The schematic is in **Exhibit 540-5** and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/state wastewater discharge permit.pdf

Agency Issuing Permit - Washington State Department of Ecology.

Statutory Authority – RCW 90.48; WAC 173-216; WAC 173-240 (large on-site sewage disposal systems).

Regulated Activities – Planned discharge of wastewater to the ground or discharge of wastewater other than domestic sewage, to a municipal treatment plant (Publicly Owned Treatment Works, or POTW). The SWDP is also used to authorize discharge of domestic sewage to ground, including on-site sewage systems exceeding 14,500 gpd, and systems using mechanical treatment or infiltration lagoons with design flows above 3,500 gpd. It is also used to authorize the discharge of reclaimed water.

Exempt Activities – The SWDP program is complementary to the other water quality permits administered by Ecology. It does not cover the following:

- The Underground Injection Program under WAC 173-218 (see Section 540.14).
- NPDES Industrial permits issued for point source discharges under WAC 173-220.
- Waste discharge general permits issued for non-point-source discharges under WAC 173-226 (see Sections 540.04 and 540.05).

Discharge of pollutants to isolated wetlands, which is regulated through administrative order (see Section 540.13).

Also see below, Related Permits and Approvals.

Geographic Extent – State of Washington.

Types of Permits – There are two types of State Waste Discharge Permit, General and Individual. The NPDES and State Waste Discharge permits are combined for NPDES Construction Stormwater, Sand and Gravel, and Industrial Stormwater General Permits. Other SWDPs are considered individual permits.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Discharge of domestic sewage between 3,500 and 14,500 gpd is regulated by an onsite sewage permit from the Washington State Department of Health (DOH) (see Section 540.21); discharge under 3,500 gpd is regulated by local onsite sewage permits (see Section 550.10). For on-site sewage disposal facilities, contact the local health department for any additional local requirements.

Interagency Agreements – See Section 540.04 and Section 431.04 for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – Ecology is required to take action within 60 days of receiving a complete application. If no action is taken, the applicant receives a temporary permit.

Fees – See fee schedule, WAC 173-224.

(2) How to Apply

Applications for State Waste Discharge Permits are online and can be downloaded at:



http://www.ecy.wa.gov/programs/wq/wastewater/index.html#potw

There are separate applications for discharge of industrial wastewater to groundwater, industrial wastewater to a municipal treatment facility, and municipal wastewater (domestic sewage) to groundwater.

JARPA – Not applicable.

Pre-application Conference – Advisable for most applications.

Special Information Requirements – The application requires information on pollutants in the waste stream, materials which may enter the waste stream, flow characteristics of the discharge, and site characteristics at the point of discharge. After receiving the application, Ecology may request additional information.

An engineering report is required for large on-site sewage systems, which are reviewed under WAC 173-240. The first page of the permit application is submitted as the cover sheet for the engineering report.

Public Notice – WSDOT publishes a notice of application twice in two consecutive weeks, giving the public 30 days for comment.

Submitting the Application – Mail the completed application to the Ecology regional office where the project is located. Larger projects may be permitted through Ecology headquarters:

Department of Ecology Water Quality Program 300 Desmond Drive P.O. Box 47600 Olympia, WA 98504-7600

Agency and Public Review – If the permit is approved, Ecology publishes a notice of draft permit, allowing another 30 days for public comment. A public hearing may be required if the permit is controversial.

Appeal Process – Permit decisions can be appealed to the Pollution Control Hearings Board within 30 days of receipt by WSDOT.

Post-permitting Requirements – Meet the requirements of the permit.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 431**, Water Quality/Surface Water; and **Chapter 433**, Groundwater.

For general information about wastewater discharge permits in Washington, see:

http://www.ecy.wa.gov/programs/wq/wastewater/index.html

http://www.ecy.wa.gov/biblio/wgr019.html

The Waste Discharge General Permit rule is being amended to bring consistency with the Underground Injection Control Program rules. More information can be found at:

http://www.ecy.wa.gov/laws-rules/activity/wac173226.html

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see Appendix G for list of contacts). Other assistance is available from WSDOT's Environmental Affairs Office. Call Mike Stephens at 360-570-6656, or email StepheM@wsdot.wa.gov. Technical assistance is also available from permit coordinators at Ecology regional offices, or Gary Bailey, water quality staff at Ecology headquarters, 360-407-6433, Gbai461@ecy.wa.gov.

(5) Information Last Updated May 24, 2005.

Isolated Wetlands – Administrative Order 540.13

(1) Overview

Isolated wetlands are defined as wetlands not connected by surface hydrology to recognized water bodies such as rivers, streams, lakes and bays. These wetlands were removed from Section 404 jurisdiction by the U.S. Supreme Court in SWANCC v. U.S. Army Corps of Engineers.

Ecology has broad authority under the Water Pollution Control Act to control and prevent the pollution of streams, lakes, rivers, ponds, inland waters, salt waters, and other waters of the state. Isolated wetlands are considered waters of the state. Ecology may prevent any activity that causes pollution.

Agency Issuing Permit - Washington State Department of Ecology.

Statutory Authority - RCW 90.48.

Regulated Activities – Activity that may cause pollution, including discharge of fill or other alteration of the physical, chemical, or biological properties of isolated wetlands.

Exempt Activities - None.

Geographic Extent – State of Washington.

Types of Permits – Ecology issues Administrative Orders for isolated wetlands.

Prerequisite Permits and Approvals - Ecology requires a jurisdictional determination from the Corps that it does not have authority under Section 404 of the federal Clean Water Act to regulate the wetland in question (see Section 520.02). WSDOT may request a jurisdictional determination directly or submit a JARPA and receive the Corps determination as part of a larger project with both isolated and jurisdictional wetlands.

Related Permits and Approvals – Local governments also regulate many isolated wetlands through their critical areas ordinances (see Section 550.04).

Interagency Agreements – None applicable.

Processing Time – Approximately 90 days after submittal of a complete application that includes the jurisdictional determination from the Corps.

Fees - None.

A more detailed overview of how isolated wetlands are regulated is provided in a guidance paper available at:



http://www.wsdot.wa.gov/environment/biology/wet_policypapers.htm

(2) How to Apply

Ecology's Isolated Wetlands Information Sheet is submitted with the JARPA form for activities affecting isolated wetlands. This form requires specific wetland information such as delineation data sheets, functions assessment, category rating forms, and mitigation plan. Include the jurisdictional determination letter from the Corps.

The Isolated Wetlands Information Sheet is on Ecology's web site at:

http://www.ecy.wa.gov

Click on Services, then Permitting, then Environmental Permitting Services, then under the heading Helpful Publications click on Isolated Wetlands Information.

Or by direct link:

http://www.ecy.wa.gov/programs/sea/pac/pdf/lsolatedWetlandsInfoSheet.pdf

JARPA - The JARPA form can be downloaded from the Ecology web site:

http://www.ecy.wa.gov/

Click on Services, then Permitting, then Environmental Services and under the heading of Permit Applications click on Joint Aquatic Resource Permit Application (JARPA).

Or by direct link:

http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:

http://www.one-stop-jarpa.org/

Pre-application Conference – To set up a pre-application conference contact Penny Kelley, transportation liaison/isolated wetland coordinator at 360-407-7298 or by e-mail at pkel461@ecy.wa.gov.

Special Information Requirements – For a pre-application meeting information on the project, size and category of wetland(s) and amount of impact and any information on proposed mitigation if available.

Public Notice – Not applicable.

Submitting the Application – Submit the application materials to:

Penny Kelley

Transportation Liaison/Isolated Wetlands Coordinator for WSDOT Headquarters

Washington State Department of Ecology

P.O. Box 47600

Olympia, WA 98504-7775

Agency and Public Review – There is no agency or public review of administrative orders for isolated wetlands. Ecology has an internal review process for administrative orders. SEPA review is not required to issue the order. However, if the isolated wetland impacts are part of a larger project requiring other permits or where jurisdictional wetlands are present, SEPA review is required for the project.

Appeal Process – An applicant may appeal the conditions of the administrative order to the Pollution Control Hearings Board.

Post-permitting Requirements – The WSDOT construction office is responsible for submitting an as-built report within six months of completing site construction. Annual monitoring reports are required as part of the normal

reporting cycle. Annual monitoring reports are due by March 31st of each year for the previous year's monitoring activities. These are included as conditions in the administrative order.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 431**, Water Quality/Surface Water; and **Chapter 437**, Wetlands. See also **Section 520.02**, Section 404 permit; and **Section 540.12**, State Waste Discharge Permit. For information on water quality procedures during construction see **Section 620.04**.

An Ecology Focus Sheet on changes in the regulatory process for isolated wetlands is online at:

http://www.ecy.wa.gov/pubs/0106020.pdf

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office. Call Bob Thomas at 360-705-7405 or email ThomasBo@wsdot.wa.gov. For assistance from Ecology, contact Penny Kelley, Transportation Liaison at 360-407-7298 or by e-mail at pkel461@ecy.wa.gov.

(5) Information Last Updated May 26, 2005.

540.14 Underground Injection Control Registration

(1) Overview

The federal Safe Drinking Water Act establishes an Underground Injection Control (UIC) program to protect groundwater quality by regulating the disposal of fluids into the subsurface. Most UIC wells are simple devices that allow fluids into the shallow subsurface under the force of gravity. In Washington, thousands of UIC wells, mainly dry wells, are located along parking lots and roads to manage stormwater runoff. The potential for groundwater contamination from UIC wells can occur and is dependent on the well construction and location, the volume and quality of the fluids injected and the hydrogeologic setting.

Ecology is authorized by the U.S. Environmental Protection Agency (USEPA) to administer the UIC program in Washington. The program is rule authorized, which means the wells have to be registered but do not require a permit. Ecology is revising the UIC rule as of January 2005.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – 42 USC 300h *et seq.*; 40 CFR 144; RCW 90.48 (Water Pollution Control), WAC 173-218 (Underground Injection Control Program), and WAC 173-200 (Water Quality Standards for Ground Waters).

Regulated Activities – Injection wells are artificial or improved holes in the ground, deeper than they are wide at the ground surface; or improved sinkholes or sub-surface fluid distribution systems. They are used to release or dispose of fluids underground; for example to manage stormwater, dispose sanitary sewage, or clean up contaminated sites. Examples include sumps, drywells, drainfields and infiltration trenches that contain perforated pipe. A fluid is any flowing matter, regardless of whether it is in a semisolid, liquid, sludge, or gaseous state. The fluid may be injected for a beneficial use (e.g. ground water recharge or at an aquifer remediation site) or potentially harmful (e.g. misuse of a septic system by accepting fluids other then sanitary waste).

The UIC program maintains a non-endangerment performance standard, which prohibits injection that allows the movement of fluids containing any contaminant into underground sources of drinking water. In Washington, all ground water is considered a potential source of drinking water.

Ecology maintains an inventory of UIC wells, which must be registered in Washington, whether or not they are in use. WSDOT must register UIC wells prior to construction and must keep Ecology informed of the status of the well, e.g., active, closed, change in ownership, or change in use. Registration is especially important if the well is in a locally designated Wellhead Protection Area, Critical Aquifer Recharge Area, or other sensitive water quality protection area.

The statutes identify five classes of UIC wells. In Washington Classes I to IV are prohibited. All other wells are considered Class V wells.

Exempt Activities – Infiltration ponds and infiltration trenches that do not contain perforated pipe are not registered under the UIC program.

Geographic Extent - State of Washington.

Types of Permits – Not applicable.

Prerequisite Permits and Approvals – None.

Related Permits and Approvals – On-site sewage disposal systems require a State Waste Discharge Permit from Ecology if the discharge is over 14,500 gallons per day (gpd) (see **Section 540.12**), from Washington State Department of Health (DOH) if between 3,500 and 14,500 gpd (see **Section 540.21**), and from the local health department if under 3,500 gpd (see **Section 550.10**).

Interagency Agreements – None applicable.

Processing Time – Not applicable.

Fees - None.

(2) How to Apply

To register a UIC well, change its status, or report closure, obtain the needed forms from Ecology at:

http://www.ecy.wa.gov/programs/wq/grndwtr/uic/registration/reg_info.html

JARPA – Not applicable.

Submitting the Application – Mail completed registration form to:

UIC Coordinator Water Quality Program Department of Ecology P.O. Box 47600 Olympia, WA 98504-7600

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 431**, Water Quality/Surface Water; and **Chapter 433**, Groundwater.

For information on Washington's UIC program, including an overview, current and draft rules, registration forms, and a fact sheet for Class V wells, see Ecology's web site:

http://www.ecy.wa.gov

Click on Water Quality, then Ground Water.

Or by direct link:

http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For assistance from Ecology, contact Mary Shaleen Hansen, 360-407-6143, maha461@ecy.wa.gov.

(5) Information Last Updated May 5, 2005.

540.15 Hydraulic Project Approval (General and Individual) – Construction in State Waters

(1) Overview

The Hydraulic Project Approval (HPA) is intended to protect fish life, and is required for any activity that uses, diverts, obstructs, or changes the natural flow or bed of any salt or fresh water. Approval from the Washington State Department of Fish and Wildlife (WDFW) is required before beginning the activity.

Projects designed to enhance fish habitat may qualify for streamlined approval processing and exemption from SEPA requirements and local government permits and fees. Habitat enhancement constructed as mitigation for environmental impacts of a project does not qualify. Only projects specifically for fish habitat enhancement may be covered by this streamlined process.

Ecology has prepared a schematic diagram illustrating the application and review process for the HPA with a link to a schematic for the Fish Habitat Enhancement Project exemption. The schematics are in **Exhibit 540-6** and **Exhibit 540-7** and online at:

HPA:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/ Hydraulic_Project_Approval_Permit.pdf

Fish Habitat exemption:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/Links/fish_enhancement_exemption.pdf

Agency Issuing Permit – Washington State Department of Fish and Wildlife (WDFW).

Statutory Authority - Chapter 77.55 RCW; Chapter 220-110 WAC.

Regulated Activities – An HPA is required for any work that uses, obstructs, diverts or changes the natural bed or flow of salt or fresh waters of the state. HPA conditions include fish habitat and fish life protection requirements.

Exempt Activities – Activities not requiring an HPA (WAC 220-110-035) include:

- Installing, by hand or hand-held tools, small scientific markers, boundary markers, or property line markers.
- Driving a vehicle or equipment on or across an established ford.
- Conducting a remedial action under a consent decree, order, or agreed order, pursuant to RCW 70.105D (exempt from procedural requirements but not the substantive provisions of the Hydraulic Code).

Geographic Extent - State of Washington

Types of Permits – HPAs include emergency, expedited and standard types. For permit streamlining purposes, a standard HPA may be issued for one specific project location (Individual HPA), two or more specific project locations (Consolidated HPA) or for any number of unspecified locations (General HPA). General HPAs are only issued for minor, routine, maintenance activities that have a low risk of impact to fish life. Standard HPAs are issued for up to five years. Most WSDOT projects require an Individual HPA unless it is covered by one of the ten General HPAs. WDFW has issued for common WSDOT activities including:

- Bridge and ferry terminal maintenance and repair, including bridge and ferry terminal cleaning and painting, deck repair/replacement, and other structural repair.
- Removing or modifying recently constructed beaver dams.
- Removing or relocating debris from bridges.
- Fresh and marine water sediment test boring and geotechnical surveying.
- Maintaining channelized streams and removing debris and sediment.
- Maintaining existing fishway facilities.
- Maintaining culverts.
- Repairing and maintaining culverts in non-fish bearing waters.
- Replacing up to 40 piles in marine ferry terminals.

In addition, WDFW has two Pamphlet HPAs, or permits-by-rule, which do not require a written application; the only requirement is to follow the conditions listed in the pamphlet. The pamphlet HPA entitled *Aquatic Plants and Fish* applies to certain aquatic plant control and removal projects. The other pamphlet HPA, *Gold and Fish*, applies to mineral prospecting.

In immediate or imminent threat situations, WDFW may issue an "emergency" or "expedited" HPA, respectively (see RCW 77.55.100 (5) and (3)). The emergency HPA is issued when there is an immediate threat to life, the public, property or risk of environmental degradation. It is issued for the duration of the emergency. "Emergency" work that would not start within 15 days of the permit request may best be addressed as an expedited HPA.

The expedited HPA is issued for imminent threats by weather, water flow, or other natural conditions that are likely to occur within 60 days of a request for a permit application, or may be issued if normal permit processing would result in a significant hardship for the applicant or unacceptable damage to the environment. In these situations, the WDFW agency review is expedited and permits are issued for up to 60 days.

Prerequisite Permits and Approvals – State Environmental Policy Act (SEPA) compliance must be complete before WDFW can review the application and issue the HPA. SEPA compliance is not required for an expedited or an emergency HPA, nor for projects qualifying as fish habitat enhancement projects. SEPA compliance has been completed for the general HPAs.

Related Permits and Approvals – Projects resulting in discharge of wastewater may also require a Section 404 permit (see Section 520.02); work in navigable water may require a Section 10 permit (see Section 520.04). Bridge projects may require a Section 9 permit (see Section 520.03). For these projects, the public notice circulated by the Corps or USCG serves as the HPA application.

Projects resulting in discharge of wastewater may also require Section 401 water quality certification and a NPDES/State Waste Discharge Permit from Ecology (see Section 540.02 and Section 540.04 through Section 540.08). Projects proposing to remove 5,000 board feet of merchantable timber from newly acquired right-of-way, or on forested lands managed by Washington State Department of Natural Resources (WDNR) may require a Forest Practice Permit (see Section 540.18).

For over-water maintenance activities covered by WDFW's General HPA for bridge and ferry terminal cleaning, painting and general maintenance and repair, conditions of Ecology's NPDES Programmatic Permit for low-pressure maintenance washing and high pressure paint-preparation washing also apply (see Section 540.08).

Local permits and approvals may also be required.

Interagency Agreements – A Memorandum of Agreement (MOA) between WSDOT and WDFW on construction in state waters (June 2002) covers coordination of project review for capital and maintenance projects, procedures for scheduled, unscheduled and emergency maintenance, HPA application procedures, oversight and monitoring responsibilities, and specific technical

guidance relevant to WSDOT projects. This MOA is currently under revision and is expected to be renewed by December 2005.

The MOA is online at WSDOT ESO's compliance web site or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/docs/MOA_Final.pdf

Processing Time – Most HPAs are processed within 45 calendar days after the complete application is received and SEPA compliance is complete. Expedited HPAs are processed within 15 days; and emergency HPAs are processed immediately.

For fish habitat enhancement projects, WDFW must approve or deny the HPA, or make a determination that the proposed work does not qualify for the exemption process within 45 days. Local government has 15 days to identify concerns with public health and safety.

Fees - None.

(2) How to Apply

The *General HPA*s listed above have already been issued to WSDOT. Therefore, no additional application is necessary for the specific activities covered by these permits. However, agency notification is required prior to beginning work, and reports of activities must be submitted to WSDOT ESO for annual reporting to WDFW and Ecology. See the provisions of each General HPA for the specific notification requirements. As General HPAs are not modified on a site-by-site basis, projects or work that could not be conducted without a modification of the General HPA would require an Individual HPA.

Application for an *Individual HPA* should be submitted to WDFW when final project plans are near completion. However, prior to application submittal, early coordination with WDFW in the planning process and early design phases is strongly encouraged. Application can be made through any one of the following documents (WAC 220-110-030):

- Hydraulic Project Application submitted to WDFW using JARPA (see below).
- Section 404 or Section 10 public notice circulated by the Corps (see Section 520.02 or Section 520.03).
- Forest Practices Application submitted to (WDNR) if the hydraulic project is part of a forest practice as defined in WAC 222-16-010 (see Section 540.18).

To determine whether a fish habitat enhancement project qualifies for streamlined processing, contact WDFW or see the eligibility criteria, online at:

http://www.ecy.wa.gov/programs/sea/pac/enhan.htm

JARPA – Application for an Individual or General HPA, including an expedited HPA, is made through the Joint Aquatic Resources Permit Application (JARPA), a system designed to allow applicants in Washington to batch permit applications and encourage concurrent permit review periods (see Section 510.03). The JARPA can be downloaded from:

http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:

http://www.one-stop-jarpa.org/

Pre-application Conference – The MOA between WDFW and WSDOT referenced above (Interagency Agreements) requires annual meetings that function as pre-application meetings. WSDOT regional staff may also contact the local WDFW Area Habitat Biologist to request pre-application review of proposed projects.

Special Information Requirements – The JARPA package must include general plans for the overall project, complete plans and specifications for the proposed construction or work within the waterway, and for the proper protection of fish life (see WAC 220-110-030 and Appendix A of the MOA.) Applications for streamlined processing of fish habitat enhancement projects must additionally include the application form for these projects that is attached to the JARPA. This form is online at:

http://www.ecy.wa.gov/programs/sea/pac/docs/fishenhancement.doc

Public Notice – Other than the public review process mandated by SEPA, there is no public review process specified. For most (90 percent) of the projects, the SEPA Determination of Non-significance is the only public notice given. On larger projects that involve a NEPA document or SEPA EIS, public meetings are required during the documentation process.

Submitting the Application – Applications are submitted to the WDFW biologist in the regional office serving the project area. Contact information is online at:

http://wdfw.wa.gov/reg/regions.htm

Agency and Public Review – WDFW grants or denies approval of standard HPAs within 45 calendar days of receiving a complete application and notice of compliance with any applicable SEPA requirements. The 45-day period may be extended, if the permit is part of a multi-agency permit streamlining effort and all participating permitting agencies and the permit applicant agree to an extended timeline longer than 45 calendar days. The 45-day period can be suspended if, after 10 working days of receipt of the application, the applicant cannot be reached, the project site is inaccessible, or the applicant requests a delay. Written requests for time extensions, renewals, or alterations to an existing HPA should be submitted.

HPA approval is usually given by the WDFW Area Habitat Biologist. However, most General HPAs are issued from Olympia. HPAs are issued for up to five years, after which the applicant must re-apply. The permit holder must demonstrate substantial construction progress on the portion of the project related to the HPA within two years. Permits are denied when the project results in direct or indirect harm to fish life, unless adequate mitigation can be assured by conditioning the HPA or modifying the proposal.

Emergency HPAs are issued upon request. Whenever possible, an on-site technical visit is conducted by WDFW prior to issuing the HPA. No application is required, but WDFW usually requests a simple faxed application. If verbal approval is requested, WDFW must convey all conditions given verbally into a written follow-up permit within 30 days of the verbal approval. While verbal emergency approval is sometimes necessary, WDFW typically issues WSDOT written emergency approval the same day as the request. Emergency HPAs are reviewed immediately and are valid for the duration of the emergency.

Expedited HPAs require a written application. They are reviewed within 15 days and are valid for up to 60 days.

For fish habitat enhancement projects, the JARPA and supplementary application is submitted to WDFW and local government planning and permitting departments. Within 15 calendar days, WDFW determines whether the project qualifies for streamlining or not. If so, it is exempt from SEPA and local permits and fees (RCW 77.55.290).

Appeal Process – Informal and formal appeal processes are available to the applicant or other aggrieved parties, but must be filed within 30 days of issuance, conditioning or denial of the HPA.

Post-permitting Requirements – The MOA between WSDOT and WDFW specifies WSDOT's responsibilities for oversight by training project inspectors how to monitor projects for compliance with HPA provisions. If after the HPA is issued, project designs change or circumstances arise that require modifications to design or construction methods, WSDOT notifies the WDFW Area Habitat Biologist to discuss changes to design and potential modifications to the HPA.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 431**, Water Quality/Surface Water; **Chapter 432**, Floodplain; **Chapter 436**, Wildlife, Fish and Habitat; and **Chapter 437**, Wetlands. For information on water quality procedures during construction see **Section 620.04**.

For detailed guidance on general HPAs, WSDOT maintains a web site with current HPAs, unified conditions, conditions for each HPA, and interagency agreements.

http://www.wsdot.wa.gov/environment/Programmatics/default.htm

(4) Permit Assistance

Contact the WSDOT regional office environmental staff for information or guidance on use of General HPAs (see **Appendix G** for list of contacts). Contact Gregor Myhr, Permit Program Manager, at 360-705-7487, or email MyhrG@wsdot.wa.gov; or Joel Gjuka, Statewide Permits, at 360-705-7490 or email GjukaJo@wsdot.wa.gov. Technical assistance is also available from WDFW Area Habitat Biologists, or Regulatory Services Section staff.

540.16 Aquatic Lands Use Authorization

(1) Overview

Under what is commonly referred to as the Aquatic Lands Act, anyone wishing to use state-owned aquatic lands, including owners of adjacent lands, must get authorization from the Washington State Department of Natural Resources (WDNR). Aquatic lands include the beds of Puget Sound, navigable rivers, lakes, and other waters; and much of the tidelands (land covered and exposed by the tide) and shorelands of lakes and other fresh waters.

WDNR's primary considerations in authorizing use of aquatic lands are: fostering water-dependent uses, ensuring environmental protection, encouraging direct public use and access, and promoting renewable resources. Non-water dependent uses such as highways must be compatible with existing or planned water-dependent uses. Use authorizations may be made for up to 55 years, as determined by statutory criteria.

See Section 540.17 for related information on easements on state-owned land in upland areas.

Agency Issuing Authorization – Washington State Department of Natural Resources.

Statutory Authority – RCW 79.90-79.100 and WAC 332-30-122 (aquatic land use authorization); RCW 79.36 (easements over public lands); RCW 47.12.023, RCW 47.12.026 (acquisition of state lands).

Regulated Activities – Typical WSDOT activities for which authorization is required include dredge disposal, easements for bridges and utility crossings (including outfalls), ferry terminals and docking facilities, and sand and gravel removal. Any activity interfering with the general public use of an area requires authorization. Use authorization agreements may be granted for crossing aquatic lands, and a right-of-entry may be granted for uses that typically require only a temporary use of state-owned aquatic lands and no structures or equipment are installed.

Exempt Activities – The only exempt structures are federal structures serving the needs of navigation (WAC 332-30-122).

Geographic Extent – State of Washington.

Types of Permits – Authorization to use state-owned aquatic lands and/or materials may be in the form of a lease, material purchase, easement, permit, or other instrument.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required. For non-exempt projects, the applicant must complete a SEPA checklist, issue a Determination of Non-Significance or a Determination of Significance for which an EIS was prepared and appropriate mitigation measures were incorporated, and include any additional information required by SEPA before WDNR will agree to an easement. A property survey

that meets the specifications for Exhibit A must also have been approved by WDNR.

All necessary federal, state, and local permits must be acquired and copies furnished to WDNR before use can be authorized. When evidence of interest in aquatic land is necessary to apply for a permit, an authorization instrument may be issued but conditioned on receiving the permit.

Related Permits and Approvals – Other approvals that may be needed before the aquatic use authorization is received include: Section 404 permit from the Corps for dredge and fill activities (see Section 520.02); Section 10 permit from the Corps for work in navigable waters (see Section 520.03); Section 9 bridge permit from the USCG (see Section 520.04); Section 401 Water Quality Certification from Ecology (see Section 540.02); NPDES permit from Ecology (see Section 540.04 to Section 540.08); Hydraulic Project Approval from WDFW (see Section 540.15); and a Shoreline permit from local government (see Section 550.02).

Interagency Agreements – There are no official interagency agreements at this time. WSDOT and WDNR issued a joint memorandum to their staffs on April 4, 2005 to work cooperatively on utility crossings attached to bridges that cross over state-owned aquatic lands. WSDOT and WDNR continue to work cooperatively to develop a standardized easement template for state-owned aquatic lands.

Processing Time – Generally from six months to one year.

Fees – WSDOT may obtain an easement at no charge for highway or toll facilities rights-of-way, or for ferry terminal or docking facilities, including necessary fills on, over, or across the beds of navigable waters under WDNR jurisdiction (RCW 47.12.026).

Under RCW 47.12.026, WSDOT may get free easements for beds of navigable waters and harbor areas. WSDOT uses over tidelands and shorelands must pay just compensation to WDNR and the jurisdiction of those lands are transferred to WSDOT (under RCW 47.12.023). To qualify for free use authorizations within harbor areas, the easements and rights-of-way must be designated as public places by the Harbor Line Commission (See RCW 47.12.026). To qualify for free use authorizations within harbor areas, the easements and rights-of-way must be designated as public places by the Harbor Line Commission (see RCW 47.12.026).

Rents for use of state-owned aquatic lands are determined by statute and regulation (WAC 332-30-123 and WAC 332-30-125).

(2) How to Apply

Applicants submit a Short Form Application for Authorization to Use State-Owned Aquatic Lands along with a JARPA. The Short Form, including property survey requirements, is online at:

http://www.ecy.wa.gov/programs/sea/pac/docs/short-form-application 10 2003.doc

JARPA – The JARPA is a system designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see **Section 510.03**, JARPA). The JARPA is online at:

http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:

http://www.one-stop-jarpa.org/

Pre-application Conference – WDNR schedules pre-application conferences at the request of the applicant.

Special Information Requirements – See supplemental application.

Public Notice – WDNR gives public notice of sites proposed for non-water-dependent uses.

Submitting the Application – Send the completed JARPA and Short Form application to the WDNR district where the project is located (see list of addresses of districts on the application form).

Agency and Public Review – In reviewing authorization requests, WDNR's analysis includes environmental, public use and access, and management considerations. Authorization instruments are written to ensure that structures and activities on aquatic lands are designed, constructed, maintained, and conducted using sound environmental practices. Uses that cause adverse impacts may be authorized only upon compliance with applicable laws and regulations and mitigation of substantial or irreversible impacts. Non-water dependent uses with significant adverse impacts will not be authorized. Underwater pipelines, outfalls and cables are authorized only if there is no practical upland alternative.

Owner(s) of property abutting the land for which the use authorization is requested must be notified of the intention to lease the area. The owners of the abutting upland property have a preference to lease first-class tidelands and shorelands, and second-class shorelands. WDNR may only lease bedlands to the abutting tideland or shoreland owner or lessee, unless the abutting owner consents to such lease. (See RCW 79.94.070, 79.90.280, 79.94.260, and 79.95.040.) When not adverse to the public's ownership, the abutting owner's water access needs may be reasonably accommodated.

Appeal Process – An applicant can make a formal appeal under RCW 79.02.030. The appeal must be received by the county superior court within 30 days of the order or decision. Additionally, proposed rent can be appealed under RCW 79.90.520 and WAC 332-30-128, within 30 days of WDNR's notification of rent being due.

Post-permitting Requirements – WDNR staff monitor the leased site to ensure compliance with lease requirements.

(3) For More Information

For questions about aquatic surveys, please call WDNR at 360-902-1100. WDNR's leasing and rights-of-way web site has links to the application form and other documents including a streamlined process for

records of survey and steps for preparing a record of survey plat. The web site is at:

http://www.dnr.wa.gov/htdocs/sales_leasing/

Or by direct link:

http://www.dnr.wa.gov/htdocs/sales_leasing/leasing/rightsofway/index.html

http://www.dnr.wa.gov/htdocs/aqr/pdfs/distmgr_map.pdf

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's ESO (contact Gregor Myhr, Permit Program Manager, at 360-705-7487 or myhrg@wsdot.wa.gov). For assistance from WDNR, the statewide contact for information on aquatic use authorizations is at the Aquatic Resources Division, PO Box 47027, Olympia, Washington 98504-7027; 360-902-1100 (phone); 360-902-1786 (fax); ARD@wadnr.gov.

(5) Information Last Updated May 20, 2005.

540.17 Easement over Public Land

(1) Overview

Washington State Department of Natural Resources (WDNR) is authorized by statute to grant rights-of-way and easements over and across state-owned upland and aquatic lands. Any local, state, or federal agency desiring to locate, establish, and construct a road or street over state lands can petition for a right-of-way. WDNR enters into such an agreement only after careful consideration of the long-term impacts to the state property.

The statute also authorizes rights-of-way for railways and utility lines. Railway easements are granted by statute to the extent defined by RCW 79.36.450. Acquisition procedures are defined in RCW 79.36.460.

WSDOT is authorized by statute to acquire state-owned land under WDNR's jurisdiction for highway purposes. If WSDOT and WDNR determine the land should be transferred to WSDOT rather than use it under an easement or right-of-way, the procedures outlined in RCW 47.12.023 apply rather than RCW 79.36.

See Section 540.16 for related information on obtaining rights-of-way on state owned aquatic lands.

Agency Issuing Authorization – Washington State Department of Natural Resources.

Statutory Authority – Chapter 47.12 RCW, RCW 79.36.440 (public roads); RCW 79.36.450 – 79.36.500 (railways), RCW 79.36.510 – 79.36.530 (utility lines).

Regulated Activities – Use of state-owned upland or aquatic lands. Most WSDOT uses are for construction of highways, bridges and related structures,

and mitigation sites. Contractors are usually responsible for obtaining utility line easements. For upland uses, rights-of-way are also granted for hauling timber, rock and other materials. For aquatic uses, an easement may be granted for crossing aquatic lands, and a right-of-entry may be granted for uses continuing for less than one year (see Section 540.16).

Exempt Activities – Not applicable.

Geographic Extent – State of Washington.

Types of Permits – Authorization to use state-owned lands may be in the form of a transfer of jurisdiction, an easement, a permit or a right-of-entry.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required. For non-exempt projects, the applicant must complete a SEPA checklist, issue a Determination of Non-Significance, and include any additional information required by SEPA before WDNR will agree to an easement. A property survey must also have been approved. Compliance with the federal Endangered Species Act, federal Clean Water Act and state Forest Practices Act is also required. The WDNR has a Habitat Conservation Plan which is equivalent to an alternate plan for complying with the Endangered Species Act. WSDOT compliance with the Endangered Species Act Section 7 consultation requirements does not ensure compliance with WDNR's need to consult under Section 10.

All necessary federal, state, and local permits must be acquired and copies furnished to WDNR before use can be authorized.

Related Permits and Approvals – Other required permits may include a Forest Practices Application from WDNR (see Section 540.18) and Hydraulic Project Approval from WDFW (see Section 540.15).

Interagency Agreements – Existing contracts between WDNR and WSDOT dating back to statehood have different language and contract requirements. They need to be reviewed individually prior to any work occurring on the property.

Processing Time – Generally from six months to one year.

Fees – WDNR may charge the appraised value of the land, valuable materials and damages for the transfer of jurisdiction, or easement. A permit is generally based upon valuable materials to be hauled or another measure of use.

(2) How to Apply

Application procedures are being revised as WSDOT projects are transferred from WDNR's rights-of-way program to its land transactions section to improve internal processing of WSDOT transfers of jurisdiction. Meanwhile, the application can be downloaded from:

http://www.dnr.wa.gov/htdocs/sales_leasing/leasing/rightsofway/application.pdf

JARPA – Not applicable.

Pre-application Conference – Prior to submitting an application for any new construction, consultation with a WDNR region representative is required. A site

visit may also be required. (Consultation is required anytime timber or valuable materials are removed from an easement area, or outside of an easement area or transfer of jurisdiction area. Doing so can prevent environmental, habitat or other types of damage.)

Special Information Requirements – A plat map must accompany the application.

Public Notice – Applications involving new construction must follow SEPA procedures, which include public review. Transfers of jurisdiction may need to go to the Board of Natural Resources for approval, which is a public process.

Submitting the Application – Submit the completed application to the WDNR region serving the county in which the project occurs.

Agency and Public Review – WDNR requires completion of SEPA and other required permits and approvals before granting the right-of-way. Public and agency review occurs as part of these processes. A transfer of jurisdiction (TOJ) transfers any rights not specifically reserved by WDNR. This includes the right to valuable materials, minerals, oil, and gas. WDNR performs an internal record search to ascertain any existing encumbrances that may need to be reserved or accounted for in a TOJ, such as a lease. Review of, clearing of title and negotiations surrounding these prior rights may add time to the process.

Appeal Process - RCW 47.12.023 defines arbitration procedures for acquisition of state lands or interests or rights to state land.

Post-approval Requirements – Requirements are included in easement and permit documents. Transfers of jurisdiction do not require any further contact unless WSDOT is operating outside of the transfer of jurisdiction area. For easements and permits, refer to the language of the document. Transfers of jurisdiction do not require any further contact unless DOT is operating outside of the transfer of jurisdiction area.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to Chapter 455, Public Lands.

For questions about upland surveys, please call WDNR's state land survey unit at 360-902-1182. WDNR's leasing and rights of web site has links to the application form and other documents including a streamlined process for records of survey and steps for preparing a record of survey plat. Go to the WDNR home page:



http://www.dnr.wa.gov/

Click on Site Map, then Business with DNR, then Leasing and Rights of Way.

Or by direct link:



http://www.dnr.wa.gov/htdocs/sales leasing/leasing/rightsofway/index.html

(4) Permit Assistance

Before beginning work on an easement or permit, contact the WSDOT regional office right-of-way staff for guidance (see **Appendix G** for list of contacts). If additional assistance is needed from WDNR, contact Janet Ballew, 360-902-1685, or email janet.ballew@wadnr.gov. Regional offices are listed online at:

http://www.dnr.wa.gov/base/regions.html

(5) Information Last Updated May 13, 2005.

540.18 Forest Practices Permit

(1) Overview

Under the Forest Practices Act, the Washington State Department of Natural Resources (WDNR) must approve certain activities related to growing, harvesting or processing timber on all local government, state, and privately owned forest lands. WDNR's mission is to protect public resources while maintaining a viable timber industry. The primary goal of the forest practices rules is to achieve protection of water quality, fish and wildlife habitat, and capital improvements while ensuring that harvested areas are reforested.

Agency Issuing Permit – Washington State Department of Natural Resources. The Legislature has authorized the agency to transfer to counties and cities the authority to process applications for Class IV General conversion forest practices (see below); currently only King, Clark, Spokane, and Thurston counties and the city of Port Townsend have accepted that authority.

Statutory Authority - RCW 76.09.

Regulated Activities – WSDOT activities that may trigger a forest practices permit include the clearing of new right-of-way. A Class IV General Forest Practices Application or Notification (FPA/N) is required to remove trees located on forest land, as defined in RCW 79.09.020, where the new right-of-way is "undeveloped," and the stand of trees is considered merchantable. Merchantable timber is defined as a stand of trees that will yield logs and/or fiber that is both: (1) suitable in size and quality for the production of lumber, plywood, pulp, or other forest products; and (2) of sufficient value to at least cover all the cost of harvest and transportation to available markets.

It is advisable to consult the regional WDNR representative regarding the need to obtain a FPA/N. A Class II Notification or a Class III Application is required to remove trees located on forest land outside the right-of-way.

Exempt Activities – Submission of a FPA/N is not required for:

- Clearing or maintaining a right-of-way that is "developed" with a road, facility, or WSDOT-owned structure.
- Removing "danger trees" outside the right-of-way if WSDOT is cutting and/or removing less than 5,000 board feet of live, dead, or downed timber, per land owner, per year for "personal use," meaning it will not be sold.

 Emergency forest practices necessitated by and commenced during or immediately after fire, flood, windstorm, earthquake, structural failure, or other catastrophic event (WAC 222-20-070). When emergency work is required on forestland, the applicant must notify WDNR within 48 hours of the commencement of necessary work. The work needs to be done in accordance with the appropriate forest practice rules and the operator should take care to minimize impacts to public resources.

Geographic Extent – Local government, state and private forest lands. WDNR does not have jurisdiction on federal lands, for example within National Parks or National Forests.

Types of Permits – The main type of permit applicable to WSDOT activities is the Class IV General FPA/N permit. A Class II or Class III FPA may be needed for (1) removing more than 5, 000 board feet of danger trees located outside the right-of-way, or (2) emergency forest practices located outside the right-of-way.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required for Class IV General applications.

Compliance with the Shoreline Management Act is required. A Shoreline Substantial Development permit from the local jurisdiction must be obtained prior to conducting forest practices that are "substantial developments" within the "shoreline" area as defined by the Shoreline Management Act (see Section 550.02).

A Hydraulic Project Approval from the WDFW is needed for work within the mean higher high water line in salt waters or within the ordinary high water line in fresh water (see Section 540.15).

Related Permits and Approvals – The Washington State Department of Ecology maintains a list of state, regional and local regulatory programs that apply to forest practice operations. See Ecology's Permit Assistance Handbook. Forest practices are also subject to the requirements of the federal Endangered Species Act and Clean Water Act. WDNR is seeking assurances from the National Marine Fisheries Service and U.S. Fish and Wildlife Service that all forest practices activities that are in compliance with the state forest practices rules and administrative program will satisfy ESA requirements, particularly the prohibition on "take" of any threatened or endangered aquatic and riparian species. WDNR is also working with the U.S. Environmental Protection Agency and Washington State Department of Ecology to ensure that the forest practices program will meet the goals and standards of the federal Clean Water Act.

Forest practices impacting archaeological resources or historic properties may require a federal and/or state Archaeological Resource Protection permit (see **Section 520.05** and **Section 540.22**) and/or concurrency with Section 106 of the National Historic Preservation Act (see **Section 520.10**).

Interagency Agreements – An Interagency Agreement between WDNR and WSDOT to modify the FPA/N instructions for WSDOT activities is currently being negotiated by the ESO Compliance Program staff. This agreement is expected to be completed Summer/Fall 2005 (contact Joel Gjuka, ESO Permit Program (360-705-7489).

Processing Time – Five to thirty days after WDNR has received and accepted a complete application, and all prerequisite permits and approvals have been obtained.

Fees – \$500 for Class IV General "conversion" of forested land to a permanent non-forest use and \$50 for Class II and III "non-conversion" applications.

(2) How to Apply

To obtain approval for a regulated forest practice, submit a FPA/N. The application requires information on the location and extent of forest road construction and maintenance activities, borrow and disposal areas for forest roads, methods and equipment, size of needed rights-of-way, reforestation plans, stream crossings and drainage plans including existing and extended culvert sizes and composition on forest roads, wildlife habitat to be removed, riparian protection, and location of water bodies and wetlands. Activity maps are also required.

Forest roads are roads on forestland that are used for forest practices. In this case, to haul the timber being cut, the FPA/N is not intended for highway information – such as the sub-grade and culverts.

An FPA/N procedure specific to WSDOT is being developed. Meanwhile, WDNR offers separate instructions and FPA/N forms for both Western Washington and Eastern Washington. Application forms and instructions can be viewed and downloaded from the WDNR web site:

http://www.dnr.wa.gov/forestpractices/

Click on Forest Practices Forms and Maps, then FPA/N Form, FPA/N Form and Instructions, FPA/N Activity Map Standards, or Mapping Website

If the SEPA process has been completed, submit a copy of the SEPA Determination of Non-Significance (DNS) and applicable approved local government permits with the FPA/N.

JARPA – Not applicable.

Pre-application Conference – Applicants may schedule an early review of a proposed application with WDNR prior to official filing, or submit an application with a delayed effective date. Early review or submission allows WDNR to review multiple applications and bring other forest practices concerns to the attention of the applicant so they can be addressed prior to official filing and processing of an application

Special Information Requirements – Applicants may be required to complete and submit other forms or information. For example, additional information and conditions may apply if the work occurs on unstable landforms. Water Type Modification Form is used to propose a water type change on forestland.

Public Notice – No specific FPA/N public notice is required. The SEPA DNS has already incorporated a public notice process, and if the project activity requires NPDES coverage, additional public notice has also been published.

Submitting the Application – Applications should be submitted to the WDNR regional office where the proposed harvest is located. Contact information is online at:

http://www.dnr.wa.gov/base/regions.html

For projects proposing Class IV-General conversion forest practices located in King, Clark, Spokane or Thurston counties or in the city of Port Townsend, the applicant should contact the appropriate county or city office to determine the application form and requirements necessary to have a complete application.

Agency and Public Review - The application is reviewed by WDNR forest practices region staff, local government, and Timber, Fish and Wildlife (TFW) Agreement cooperators. A field site visit and forester's best professional judgment is sometimes needed to determine if a FPA/N is required.

Part of the decision regarding the need for a FPA/N is whether or not the property is incompatible with growing timber, which is partly determined by current and planned land use. WDNR may refer to local governments to help make that determination.

Appeal Process – Contact the WDNR regional office or responsible county agency (King, Clark, Spokane, or Thurston counties) for information regarding appeal of disapproved applications, or conditions placed on an approved application.

Post-permitting Requirements – The FPA does not track where the timber is sold and processed, only that the harvest complied with the terms and conditions of the approved application. Washington State Department of Revenue tracks the logs to validate that the logs were not exported.

(3) For More Information

Please see Chapter 455, Public Lands, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

For information and links related to forest practices, including rules, the Forest Practices Manual, forms and instructions, and spatial data sets and maps in ArcInfo format, see WDNR's forest practices web site:



http://www.dnr.wa.gov/forestpractices/

The WDNR Forest Practices web site cited above also has a link to the Forest Practices Application Review System, which streamlines the processing of FPA/Ns and allows applicants to track the status of applications and view examples of previously submitted applications. It provides all the tools required to complete the FPA/N. The direct link is:



http://www3.wadnr.gov/dnrapp3/FPAsearch_html/FPARShome.jsp

Answers to frequently asked questions related to WSDOT projects are online via WSDOT's ESO web site:



http://www.wsdot.wa.gov/environment/Programmatics/docs/ ForestPracticePermitsFAQs.PDF

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see Appendix G for list of contacts). Other assistance is available from WSDOT's Environmental Services Office Permit Program, Joel Gjuka, 360-705-7490, GjukaJo@wsdot.wa.gov. For assistance from WDNR, the statewide contact is Kathy Murray at 360-902-1414. Other contact information:

Dept of Natural Resources Forest Practices Division 1111 Washington Street PO Box 47012 Olympia, WA 98504-7012

Phone: 360-902-1400 Fax: 360-902-1428

(5) Information Last Updated

May 19, 2005.

540.19 Surface Mining Reclamation Permit

(1) Overview

Under the Washington Surface Mine Act, the Washington State Department of Natural Resources (WDNR) is responsible for regulating the rehabilitation of areas disturbed by surface or underground mining. The basic objective of reclamation at mines is to reestablish the vegetative cover, soil stability, and acceptable water quality conditions at the site. Mines are also reclaimed for secondary beneficial uses: fish and wildlife habitat, grazing, forestry, wetlands, and commercial and industrial uses. Other local, state, and federal agencies regulate different facets of mining operations other than reclamation.

Agency Issuing Permit - Washington State Department of Natural Resources.

Statutory Authority – RCW 78.44; WAC 332-18.

Regulated Activities – A reclamation permit is required for each surface mine site that: (1) results in more than three acres of disturbed ground (including high walls, pit floors, stockpiled areas, side-cast areas, and processing plant sites); or (2) has an internal pit site wall that is both higher than 30 feet and steeper than 45 degrees, unless there is a pre-existing natural hazard in the area.

Exempt Activities – Not applicable.

Geographic Extent – State of Washington.

Types of Permits – Individual.

Prerequisite Permits and Approvals – Before the reclamation permit can be issued, the local jurisdiction must formally approve mine siting and/or the subsequent use of the mine site (RCW 78.44.091). This approval process generally makes the local jurisdiction the lead agency under State Environmental Policy Act (SEPA) rules. The applicant must provide documentation of SEPA review sufficient for WDNR to determine that environmental impacts can be adequately mitigated.

The following other approvals must have been received if required: local zoning and land use approvals (see **Section 550**); shoreline permit (see **Section 550.02**), Hydraulic Project Approval from the WDFW (see **Section 540.15**); and all solid waste permits (WAC 332-18-01003).

A performance security for reclamation is also required before the reclamation permit can be issued and before mining can begin.

Related Permits and Approvals – Zoning and mining operations such as adequate fencing of the site perimeter, excavation, blasting, operational water and erosion control, noise and dust emission control, public safety, mineral processing, and batching are regulated by various local and state jurisdictions other than WDNR.

Interagency Agreements – None applicable.

Processing Time – Within 60 days after receipt of a permit application, WDNR must advise applicants of any information necessary to successfully complete the application. However, it may take from six months to several years before completion of the environmental documents and approval of the permits that are required prior to issuing a reclamation permit. When all other requirements have been met, WDNR must issue the reclamation permit within 30 days.

Fees – \$1,000 application fee and \$1,000 per year on the anniversary date of the reclamation permit.

(2) How to Apply

Application forms may be accessed at:



Instructions for filling in the application form are available at:

http://www.dnr.wa.gov/geology/pdf/sm8ainst.pdf

JARPA - Not applicable.

Pre-application Conference – Contact the WDNR Division of Geology and Earth Resources office in Olympia to arrange a meeting to discuss the reclamation proposal before proceeding with the application. This will facilitate the application process. The Division's mine reclamation office number is 360-902-1444.

Special Information Requirements –The proposed mining site must be compatible with local land use specifications and requirements. Haul road agreements must be secured with the local jurisdictions to haul the processed materials from the site. There are also additional information requirements for mining in flood planes, in hydrologically sensitive areas and in areas with potentially unstable or steep slopes.

Public Notice – Done as part of SEPA review.

Submitting the Application – Mail the completed application to:

Department of Natural Resources Geology and Earth Resources Division 1111 Washington Street SE PO Box 47007 Olympia, WA 98504-7007

Telephone: 360-902-1450 Fax: 360-902-1785

Agency and Public Review – Public and agency review of the reclamation permit occurs through the SEPA process. The local jurisdiction is likely to be the lead agency for SEPA, since WDNR requires local approval of the mine siting and subsequent use prior to issuing the reclamation permit.

Appeal Process – If WDNR fails to approve a complete reclamation plan within 120 days, the applicant may appeal under the provisions of RCW 78.44 and RCW 34.05.

Post-permitting Requirements – To ensure high quality reclamation after mining, WDNR requires preparation of a reclamation plan that specifies how the applicant will achieve the following reclamation goals:

- Reclaiming progressively or in segments, where possible, as mining is completed.
- Preserving topsoil.
- Restoring slopes so high walls are stable and are rounded rather than linear so features appear natural rather than artificial.
- Designing final topography to blend with adjacent topography.
- Revegetating with multi-species ground cover and trees.
- Controlling water and erosion pertaining to reclamation.

When signed by the applicant and approved by WDNR, the application and associated maps, cross sections, and other attachments will be the approved reclamation plan for this permit and must be implemented. Variation from the approved reclamation plan may require approval of a new plan.

(3) For More Information

Please see **Chapter 420**, Earth (Geology and Soils), and **Chapter 451**, Land Use, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

For links to information on surface mining reclamation, forms, publications, and geologic maps, see WDNR's Division of Geology and Earth Resources web site:



A WDNR publication, *Best Management Practices for Reclaiming Surface Mines in Washington and Oregon* (OFR 96-2) is at:



Other resources available from WDNR include a regulatory guide specific to surface mining, *Mining Regulations in Washington* (OFR 00-3), which is available online at:

http://www.dnr.wa.gov/geology/pdf/ofr00-3.pdf

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For assistance from WDNR, contact the Surface Mine Reclamation Program at 360-902-1444, surfacemining@wadnr.gov.

WDNR's permit checklist is online at:

http://www.dnr.wa.gov/geology/pdf/sm_checklist.pdf

(5) Information Last Updated May 9, 2005.

540.20 Survey Monument Removal Permit

(1) Overview

The Washington State Department of Natural Resources (WDNR) is authorized by statute to maintain a system of permanent boundary monuments as reference points for the description of common land boundaries. To accommodate construction, mining and other development, the agency issues permits to allow the temporary removal or destruction of any such monument. Before removal or destruction, the monument must be referenced to the state coordinate system by a registered professional engineer or land surveyor. Within a reasonable time after construction is completed, the monument must be replaced or a witness monument set to perpetuate the survey point.

Agency Issuing Permit - Washington State Department of Natural Resources

Statutory Authority – RCW 58.24.040(8); and WAC 332-120.

Regulated Activities – Temporary removal or destruction of a section corner or any other land boundary mark or monument.

Exempt Activities – Not applicable.

Geographic Extent – State of Washington

Types of Permits – Not applicable.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Not applicable.

Interagency Agreements – None applicable.

Processing Time – Applications are processed and the permit mailed back within 24 to 48 hours of receipt.

Fees - None.

(2) How to Apply

The Application for Permit to Remove or Destroy a Survey Monument form can be downloaded from:

http://www.dnr.wa.gov/htdocs/plso/permit.pdf

One application may be submitted for multiple monuments to be removed or destroyed as part of a single project. However, separate attachments are required detailing information for each monument.

In extraordinary circumstances, the removal may be authorized verbally; WSDOT would need to submit a properly completed application within 15 days.

JARPA - Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – The application must be printed on legal-size paper, and stamped by a licensed Civil Engineer (usually the WSDOT Regional Project Engineer) or licensed Surveyor (usually from WSDOT's Regional Right-of-Way Plans staff.

Public Notice – Not applicable.

Submitting the Application – Submit the completed applications to:

Ted Smith Public Land Survey Office PO Box 47060 Olympia WA 98504-7060

Agency and Public Review – Upon receipt of a properly completed application, WDNR is required to promptly issue a permit authorizing the removal or destruction of the monument. Applications concerning local or geodetic control points are referred to the appropriate agency, and the applicant is notified when such action is taken.

Appeal Process – Not applicable.

Post-permitting Requirements – After the monument has been replaced or a witness monument set, the Completion Report for Monument Removal or Destruction is completed by the land surveyor or engineer and sent to WDNR. The Completion Report is on the reverse side of the application.

(3) For More Information

More information can be accessed at the public land survey office web site at:



(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional right-of-way staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's HQ Design Office, Billy Mumma, 360-705-7458, mummab@wsdot.wa.gov. If additional assistance is needed from WDNR, contact Ted Smith at 360-902-1194 or ted.smith@wadnr.gov.

(5) Information Last Updated

April 27, 2005.

540.21 On-Site Sewage Facility Permit

(1) Overview

The Washington State Department of Health (DOH) regulates on-site sewage systems to protect public health by minimizing public exposure to sewage from on-site systems and preventing adverse health effects from discharge from on-site systems to ground and surface waters.

For Large On-Site Sewage System (LOSS) septic tanks and drainfields with design flows between 3,500 and 14,500 gallons per day (gpd), DOH must review and approve the pre-design document, engineering report, plans and specifications, construction report and operations and maintenance manual. Construction approval is valid for two years, but can be extended an additional year if a written request is received. Additional conditions may be deemed necessary for an extension.

DOH has prepared a schematic diagram illustrating the LOSS application and review process. The schematic is in **Exhibit 540-8** and online at:



Agency Issuing Permit - Washington State Department of Health.

Statutory Authority – RCW 43.20; WAC 246-272B.

Regulated Activities – Disposal of sanitary sewage through septic tanks and drainfields with a design flow, at any common point, between 3,500 and 14,500 gpd except systems with mechanical or lagoon pre-treatment, which are permitted by the Washington State Department of Ecology (Ecology).

Exempt Activities – Not applicable.

Geographic Extent – State of Washington (DOH currently delegates LOSS approval to the local health jurisdiction in Clallam, Kitsap, San Juan and Thurston Counties.

Types of Permits – DOH issues a construction approval after reviewing the plans and specifications and an Operating Permit after construction is certified by the design engineer.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Contact the local health department for any additional local requirements. Onsite discharge of domestic sewage with mechanical or lagoon pretreatment over 3500 GPD or any discharge over 14,500 gpd is regulated by State Waste Discharge Permit from Ecology (see **Section 540.12**); discharge under 3,500 gpd is regulated by an onsite sewage permit from the local health department's (see **Section 550.10**).

Underground injection activities, including onsite sewage disposal, are regulated through Ecology's Underground Injection Control program (see Section 540.14). If a project will also result in discharge of stormwater or other wastewater to surface water, the State Waste Discharge Permit is combined with the appropriate National Pollution Discharge Elimination System (NPDES) permit (see Section 540.04 through Section 540.08).

Interagency Agreements – Not applicable.

Processing Time – Review and comment on the pre-design document usually takes between four and six weeks, depending on satisfaction of requirements. The Operating Permit is issued at the end of the construction period.

Fees – \$400 minimum fee for eight hours + \$50 per hour for each additional hour; \$100 per site visit (two site visits required). Fees are subject to change in 2006.

(2) How to Apply

To apply for an individual permit, complete and submit to Dept. of Health LOSS Program the Pre-Design Form, online at:

http://www.doh.wa.gov/ehp/ts/WW/Loss/PRE-DESIGN.pdf

JARPA – Not applicable.

Pre-application Conference – DOH recommends a pre-application conference between Program staff and project engineer and/or proponent.

Special Information Requirements – In some cases DOH may require a formal hydrogeology report.

Public Notice - None.

Submitting the Application – The DOH office in Spokane reviews and approves LOSS project applications statewide. Complete and submit the pre-design document form by mail or fax to:

Washington Department of Health ATTN: Richard Benson Department of Health Large On-Site Program 1500 West 4th Avenue, Suite 403 Spokane, WA 99204-1656

Fax to 509-456-3127

Agency and Public Review – Upon receipt of the Pre Design Document, if DOH concurs that the project appears conceptually feasible, a pre-site (soils) inspection is scheduled. DOH must concur with site/soil suitability and loading rate.

If DOH concurs the proposed drainfield site is suitable, WSDOT then develops and submits an engineering report, plans and specifications. If these are approved by DOH, WSDOT can proceed with bids and construction. After construction, DOH makes a final inspection and within 60 days WSDOT submits a construction report, O&M manual and as-builts. DOH issues an operating permit and reviews and approves the manual.

DOH requires an annual Operations and Maintenance report and may require additional documents such as management agreement, hydrogeology reports, treatment performance information, and sampling data.

Appeal Process – Anyone contesting a departmental decision regarding a permit, certificate, approval, or fine may file a written request for an adjudicative proceeding consistent with chapter WAC 246-272B-27001.

Post-permitting Requirements – WSDOT annually renews the LOSS operating permit and submits a report to DOH demonstrating that the LOSS is operated, maintained, and monitored in accordance with WAC 246-272B and the approved operation and maintenance manual. Fees may be required upon adoption of new rules in 2006.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to Chapter 431, Water Quality/Surface Water; and Chapter 433, Groundwater.

Complete information on the LOSS program – including LOSS Design Standards, rules (WAC 246-272B), design, management, and operation and maintenance requirements, and other resources and links – is online at the DOH web site:



The LOSS site also has the project review checklist used by DOH staff for reviewing engineering submittals. This may be used as a guidance tool to assist in completing the engineering documents. Available online at:

http://www.doh.wa.gov/ehp/ts/WW/Loss/LOSS-Review-checklist.doc

Contact the local health department for possible additional requirements:

http://www.doh.wa.gov/LHJMap/LHJMap.htm

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For technical assistance and information from DOH, contact the LOSS office in Spokane, 509-456-4431; Richard Benson 509-456-6177, Richard.Benson@doh.wa.gov; or Mamdouh El-Aarag, 509-456-2754, Mamdouh.El-Aarag@doh.wa.gov.

(5) Information Last Updated May 19, 2005.

540.22 Archaeological Excavation and Removal Permit

(1) Overview

This permit is required under the Washington State Archaeological Sites and Resources Act and Indian Graves and Records Act, which are intended to preserve and protect the state's cultural heritage. A permit from the Office of Archaeology and Historic Preservation (OAHP) must be obtained prior to any excavation that may alter or remove an archaeological resource, native Indian graves, cairns, or painted or glyptic records.

Excavation permits from OAHP apply only to WSDOT projects without a federal nexus; no federal funding, federal permit or approval, use of federal

lands, or participation in a federal program. For cultural resources, WSDOT practice is to treat all projects as if they are federally funded. No excavation permit is required for cultural resource investigations conducted to comply with Section 106 of the National Historic Preservation Act of 1966 (see Section 456.05).

Agency Issuing Permit – Washington State Department of Community, Trade and Economic Development, and Office of Archaeology and Historic Preservation).

Statutory Authority – RCW 27.44; RCW 27.53; WAC 25-48

Regulated Activities – Digging, excavating, altering, defacing, or removing archaeological objects or sites; historic archaeological resources; or native Indian graves. cairns, or painted or glyptic records.

Permits are specifically required to protect historic archaeological sites on aquatic lands, defined in WAC 25-48-125 as including Lake Washington, Elliott Bay, and the Columbia River bar (see RCW 27.53.030, 060, 080).

Exempt Activities – WSDOT projects with a federal nexus.

Geographic Extent – State of Washington.

Types of Permit – In addition to the standard permit, OAHP may issue a temporary permit immediately where delay could cause damage to an archaeological or historic archaeological resource or site. A temporary permit is valid for 30 days.

Prerequisite Permits and Approvals – A completed State Environmental Policy Act (SEPA) checklist is required before OAHP can review the application.

Related Permits and Approvals – A federal Archaeological Resources Protection permit may also be required for excavation or removal of archaeological resources from federal or tribal lands (see Section 520.05 and Section 530.03).

Section 106 concurrency may also be required if the project affects properties included in or eligible for inclusion in the National Register of Historic Places (see Section 456.05, Historic, Cultural and Archaeological Resources; and Section 520.10, Section 106 Concurrency). Depending on the location and use of the site, permits or approvals may be required under Section 4(f) of the federal Department of Transportation Act (see Section 455.05), the Washington State Forest Practices Act (see Section 540.18), and Shoreline Management Act (see Section 550.02).

Interagency Agreements – None applicable.

Processing Time – OAHP normally acts upon a permit application within 60 days of receiving a complete permit application, except when the applicant is not the holder of the right of first refusal for salvage of an historic archaeological resource (see WAC 25-48-085).

Fees – The cost of field investigation by OAHP is paid by the applicant.

How to Apply **(2)**

Contact the OAHP early in the permitting process, to determine if historic or archaeological sites may be affected by the project. The permit application, site inventory form, and related forms are available online at:

http://www.oahp.wa.gov/pages/Documents/Archaeology.htm

JARPA - Not applicable.

Pre-application Conference – Suggested, but not required.

Special Information Requirements – Information required to accompany an application is summarized in WAC 25-48-060. This includes an artifact inventory plan, scientific research design, site restoration plan, site security plan, and public involvement plan.

Public Notice – Issued by OAHP.

Submitting the Application – Submit the completed application to:

Office of Archaeology & Historic Preservation 1063 South Capitol Way, Suite 106 Olympia WA 98501

Phone: 360-586-3065 Fax: 360-586-3067

Agency and Public Review - OAHP gives public notice of a pending permit application. Comments must be received within 30 days. For proposed excavation of a native Indian cairn, grave, or removal of glyptic or painted records, OAHP must notify any tribe which may consider the site to be of historic or cultural significance at least 30 days before issuing a permit.

In addition, the status of any sites or structures listed in or eligible for listing in the State or National Register of Historic Places or Local Landmark designation may need to be determined. Plans for protection or mitigation measures may be a condition of any permit issued.

Applications are reviewed for 30 days by affected tribes, the archaeological community, OAHP, the landowner, the local jurisdiction, any involved state agencies, and any other affected party. After review of the application, OAHP may require additional information to evaluate the proposed. Field investigation or research may be required of the applicant or conducted by the office at the applicant's expense

Appeal Process – Appeals may be made in writing to the Director of the Department of Community, Trade and Economic Development within 21 calendar days of receiving notice of denial.

Post-permitting Requirements – See Chapter 456, Historical, Cultural and Archaeological Resources, Exhibit 620-3, for Construction Procedures for Discovery of Archaeological and Historical Objects.

(3) For More Information

Please see Chapter 456, Historic, Cultural and Archaeological Resources, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. For information on procedures related to historical and cultural resources during construction see Section 620.10.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office. Call Sandie Turner, 360-570-6637, TurnerS@wsdot.wa.gov; or Craig Holstine, 360-570-6639, HolstineC@wsdot.wa.gov.

For assistance from OAHP, contact Stephenie Kramer, Assistant State Archaeologist, 360-586-3083; or StephenieK@cted.wa.gov; or Greg Griffith, Comprehensive Planning Specialist, 360-586-3073 or gregg@cted.wa.gov.

(5) Information Last Updated May 5, 2005.

540.23 Air Quality Permits – Land Clearing Burns, Asbestos Demolition, Asphalt Batching or Other Temporary Pollutant Sources

(1) Overview

Under the federal and state Clean Air Acts, Washington State Department of Ecology (Ecology) and/or a regional clean air agency/authority must approve certain activities that may negatively impact air quality. For WSDOT projects, these activities may include burning to clear land for construction, demolition of a structure containing asbestos, or operation of an asphalt batching plant, rock crusher or other temporary sources of air pollution.

Agency Issuing Permit – Washington State Department of Ecology or local clean air agency/authority.

Statutory Authority – 42 USC 7401; RCW 70.94; WAC 173-425 (land clearing); WAC 173-400-040(8) (fugitive dust); WAC 173-400-035 (portable and temporary sources). Asbestos emission requirements are at 40 CFR 61.145

Regulated Activities – Outdoor burning of trees, stumps, shrubbery, or other natural vegetation from land clearing projects, such as clearing new right-of-way. No outdoor burning is allowed in Growth Management Act designated Urban Growth Area (UGA) or within some municipal boundaries. Other WSDOT activities possibly requiring an air quality permit are demolition, renovation, repair or maintenance of structures containing asbestos, and operation of portable asphalt batching plants, rock crushers, Portland concrete cement plants, and other temporary sources of air pollution.

Exempt Activities – New sources producing minimal levels of emissions that do not pose a threat to human health or the environment are exempt from permit requirements.

Geographic Extent - State of Washington.

Types of Permits – The air quality permits applicable to WSDOT are:

- Land Clearing Burn Permit
- Notification of Asbestos Demolition and Renovation Form

 Notice of Construction (NOC) Approval for Portable and Temporary Sources

Prerequisite Permits and Approvals – Varies with each permit.

Related Permits and Approvals – None applicable.

Interagency Agreements – None applicable.

Processing Time – For the land clearing burn permit, forms must be received at least one week prior to the proposed burn. For asbestos demolition, allow ten days. For temporary sources, the Notice of Construction Application must be filed with Ecology or local clean air agency/authority at least 30 days prior to starting operation for portable and temporary sources like asphalt batching plants, rock crushers, or concrete plants.

Fees – Fees vary depending on the responsible agency and size of project.

(2) How to Apply

Application procedures for the different air quality permits are described below.

(a) Land Clearing Burn Permit

Application requirements and the size of area eligible for the permit vary with each local agency/authority. Burn permits are not issued for areas inside a designated UGA. Other restrictions may apply.

For projects in Benton, Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Pierce, Skamania, Snohomish, Spokane, Thurston, Wahkiakum, Whatcom, or Yakima counties, the land clearing burn permit information and application forms can be downloaded from:



In Chelan County, contact Rod Lasher, Chelan County Fire Marshal at 509-667-6515. In Okanogan County, contact Dan McCarthy, Okanogan County Pest Inspector at 509-322-1286.

For counties not listed above, the application forms are available at:

http://www.ecy.wa.gov/programs/air/outdoor_woodsmoke/outdoorburnpermits.htm

(b) Notification of Asbestos Demolition and Renovation Form

A Notice of Intent to Remove Asbestos Form is submitted for projects in Benton, Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Pierce, Skagit, Skamania, Snohomish, Spokane, Thurston, Wahkiakum, Whatcom, and Yakima counties. Instructions for filling out the application forms and permit assistance are available online at:

http://www.ecy.wa.gov/programs/air/local.html

For counties not listed above, the application is called a Notification of Asbestos Demolition and Renovation Form and is online at:

http://www.ecy.wa.gov/biblio/ecy07087.html

(c) NOC Approval for Portable and Temporary Sources

For portable, temporary new pollutant sources like asphalt batching plants or rock crushers, the WSDOT contractor is responsible for obtaining the NOC Approval. These are usually issued by the local clean air agency/authority or the regional Ecology office. The application requirements vary from region to region. To ensure that the contractor's approval is valid for that region, WSDOT should request a copy of the NOC approval, and contact the issuing authority for the region in which the project occurs. NOCs issued in one region are not necessarily valid in another region.

Ecology has prepared a schematic diagram illustrating the NOC Permit application and review process. The schematic is in **Exhibit 540-9** and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/air_quality_Notice_of_Construction_Schematic.pdf

JARPA - Not applicable.

Pre-application Conference – See each permit application.

Special Information Requirements – See each permit application.

Public Notice – Contact local clean air agency.

Submitting the Application – For NOCs, submit permit applications to the local clean air agency or the Ecology regional office having jurisdiction over the county in which the project is to be located.

For burning in Chelan, Douglas, Kittitas, Klickitat counties, submit application to:

Okanogan Central Regional Office Department of Ecology 15 W. Yakima Ave., Suite 200 Yakima, WA 98902

509-575-2490

For burning in Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Stevens, Walla Walla, and Whitman counties, submit application to:

Eastern Regional Office Department of Ecology 4601 N. Monroe Spokane, WA 99205

509-329-3400

Agency and Public Review – Applications are reviewed by the issuing office.

Appeal Process – Permits can be appealed directly to the issuing office.

Post-permitting Requirements – Not applicable.

(3) For More Information

Please see **Chapter 425**, Air Quality, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

Ecology's online Environmental Permit Handbook has links to the local clean air agencies and information on each of the three permits most likely required by WSDOT. The web site is at:

http://apps.ecy.wa.gov/permithandbook/handbook.asp

Click on Air Quality Permits.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office Air Quality Program, Mia Waters, 206-440-4541, watersy@wsdot.wa.gov, or John Maas, Asst. Program Manager, 206-440-4545, maasja@wsdot.wa.gov.

See the online Ecology Environmental Permit Handbook cited above for links to local clean air agency technical assistance staff.

For assistance from Ecology, the contacts for NOC permits are:

- Eastern Washington: Greg Flibbert, 509-329-3452, Gfli461@ecology.wa.gov
- Central Washington: Jared Mathey, 509-454-7845, Jama461@ecology.wa.gov

For other air quality permits, contact the State Permit Assistance Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ecy.wa.gov/programs/sea/pac/servcenter.html

(5) Information Last Updated May 26, 2005

540.24 Hazardous Materials Requirements

(1) Overview

Extensive federal and state regulations govern the reporting, storage, transport, disposal, and clean-up of hazardous materials. WSDOT is responsible for compliance with these laws for itself, its contractors, and its tenants. Because of the potential for liability, WSDOT requires that the Environmental Services Office (ESO) Hazardous Materials Program be contacted for the necessary permits and approvals whenever hazardous materials are encountered or generated.

Chapter 447 contains a detailed discussion of the applicable laws and technical guidance for conducting initial site assessments, preliminary site investigations, and detailed site investigation/hazardous waste management plan. These investigations are conducted primarily during the site screening and evaluation process. The permits and approvals covered in this section are required primarily during construction, maintenance, and operation. The following discussion summarizes the key regulations and their relationship to WSDOT.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Federal and state regulations related to hazardous materials can be found via WSDOT's Hazardous Materials Program:

http://www.wsdot.wa.gov/environment/hazmat/haz_docpubs.htm

Regulated Activities – Storage, transportation or disposal of hazardous substance; spills or releases of hazardous substances; discovery of hazardous materials or leaky Underground Storage Tanks (USTs); temporary closure or removal of USTs; investigative soil boring or monitoring wells.

Exempt Activities – See each permit for details on exempt activities.

Geographic Extent - State of Washington

Types of Permits – The types of permits or approvals summarized below may be needed at various stages in project development, construction and/or maintenance. Contact the WSDOT ESO Hazardous Materials Program staff for guidance on how to proceed in any incident or situation involving hazardous materials.

- Resource Conservation and Recovery Act (RCRA) Site Identification (ID)
 Number A RCRA Site ID number (also known as a "WAD Number") is
 required for any transport, transfer, recycling, treatment, storage, or disposal
 of regulated quantities of hazardous waste. A manifest with the Site ID
 number must accompany wastes during generation, transportation, storage,
 and disposal. WSDOT's regional Project Office applies for and maintains
 the Site ID number for each project.
- Dangerous (or hazardous) waste treatment, storage, and disposal facility (RCRA) – Facilities that store, treat, and/or dispose of dangerous waste must obtain a Dangerous Waste Permit for any dangerous waste activities that do not meet the less-stringent generator requirements.
- UST Notification (RCRA) A state notification form, available from Ecology, must be completed to install or remove an UST. Notification is required 30 days before installing a new tank or removing an existing one. A certified/licensed professional must perform the installation or removal. Tanks existing before the federal regulation came into effect were to have been reported by May 8, 1986. Any such tanks for which a notification form has not been completed should be reported immediately. (See Section 447.05(7).) More information can be accessed at:
 - http://www.ecy.wa.gov/programs/tcp/ust-lust/tanks.html
- Hazardous waste release notification (spills or releases) Model Toxics Control Act (MCTA) – Prompt notification to Ecology is required when a spill or release of hazardous substances has the potential to impact human health or the environment. Responsibility for reporting spills lies with the person who spills or releases the substance; however, any person aware of such spills is encouraged to contact Ecology. To report a spill, contact the National Response Center at 1-800-424-8802 or Washington State at 1-800-258-5990 or 1-800-OILS-911.
- Hazardous substance release notification requirement (MTCA) This
 notification differs from the one above in that it applies to owners and
 operators. As an owner, WSDOT must report to Ecology any release or

threatened release of a hazardous substance on a WSDOT site. Report releases by phone or written report to the appropriate Ecology regional office.

- Report of independent remedial action (MCTA) Anyone conducting an independent remedial action must submit a written report to Ecology within 90 days of completing the action.
- Monitoring Well Notification Monitoring wells for long term monitoring
 of hazardous waste movement or contamination levels is regulated through
 a Notice of Intent to Ecology. Decommissioning of monitoring wells is
 regulated by Ecology and, in some specific regions and situations, by the
 county health authority.

Prerequisite Permits and Approvals - Varies depending on the permit.

Related Permits and Approvals – County health authorities should be contacted for applicable permit and approval requirements and regulations.

Interagency Agreements – WSDOT and Ecology have signed an Implementing Agreement on Hazardous Waste Management (April 1993). This agreement concerns hazardous waste management and reduction, site remediation, and regulatory compliance. The agencies agree to cooperate in carrying out their statutory responsibilities to meet state transportation requirements and protect public health and safety and the natural environment. The agreement sets forth procedures for each agency to follow in reaching its goals and objectives. The agreement is online at:

http://www.wsdot.wa.gov/environment/hazmat/haz_docpubs.htm

Processing Time - Variable.

Fees - Variable.

(2) How to Apply

Contact the ESO Hazardous Materials Program staff in any situation involving hazardous substances where one or more of the above requirements may be applicable.

(3) For More Information

Please see Chapter 447, Hazardous Materials, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. For information on procedures related to hazardous materials during construction see Section 620.08.

Additional background information is on WSDOT's Hazardous Materials web site:

http://www.wsdot.wa.gov/environment/hazmat/

Ecology has prepared a schematic diagram illustrating the application and review process for RCRA Site ID Numbers; see Exhibit 540-10 and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/ RCRA permit schematic.pdf

(4) Permit Assistance

Contact WSDOT's ESO Hazardous Materials Program staff for guidance in any situation involving hazardous substances where one or more of these requirements may be applicable. Contact information for Hazardous Waste Specialists is on the ESO web site under the HazMat & Water Quality section, or by direct link:

http://www.wsdot.wa.gov/environment/ES_StaffList.htm

For guidance in Eastern Washington, contact WSDOT Eastern Region Haz-Mat Specialist Dean Smith, 509-324-6136, or email SmithDM@wsdot.wa.gov. Assistance is also available from Hazardous Waste Specialists in regional Ecology offices:

- Northwest Regional Office, 425-649-7000
- Southwest Regional Office, 360-407-6300
- Central Regional Office, 509-575-2490
- Eastern Regional Office, 509-329-3400.

(5) Information Last Updated May 9, 2005.

540.25 Other State Approvals

This section identifies state permits and approvals that are infrequently required for WSDOT projects:

- Water Right Permit
- Public Water System Approval New or Alterations to Existing Systems
- Dam Construction Permit
- Reservoir Permit
- Temporary Exceedance of Water Quality Standards
- Soil Boring Notice of Intent
- Beaver Trapping on WSDOT Property

WATER RIGHT - NEW, CHANGED, OR ASSIGNED

(1) Overview

Under Washington State law, users of public water must obtain a water right, in the form of a permit or certificate, from Washington State Department of Ecology (Ecology) before withdrawing water from surface and groundwater sources. A water right is a legal authorization to use a predefined quantity of public water for a designated beneficial use.

With much of the water in Washington already allocated, new water rights are increasingly difficult to obtain. In many areas, water is already claimed or overappropriated and no new water rights are being granted. An alternative is to apply for a change in an existing water right or obtain an agreement with the owner of an existing water right to assign ownership to WSDOT.

Agency Issuing Permit - Washington State Department of Ecology.

Statutory Authority - RCW 90.03; RCW 90.44.

Regulated Activities - Use of surface of water (lakes, ponds, rivers, streams, or springs) or groundwater withdrawals of more than 5,000 gallons per day. A water right is required to develop a new source, to change the use of an existing water right, or to change the point of diversion. WSDOT may need a water right for construction of a new facility such as a rest area or maintenance facility, or for diversion of surface water to create a wetland mitigation site.

Exempt Activities – Groundwater withdrawal of less than 5,000 gallons per day.

Geographic Extent - State of Washington.

Types of Permits – A water right permit is issued by Ecology to develop a water source. Water right permits remain in effect until the water right certificate is issued, until all the terms of the permit are met, or until the permit is cancelled. A water right certificate is issued by Ecology to certify that the water user has the authority to use a specific amount of water under certain conditions. Recording the certificate with the county auditor completes the process of obtaining a water right.

Prerequisite Permits and Approvals – In watershed planning under the Watershed Management Act (RCW 90.82), Ecology may await the results of the water quantity and instream flow studies before making a water right permit decision.

Water rights using one cubic foot per second or less of surface water or of 2,250 gallons per minute or less of groundwater for any purpose are exempt from SEPA.

Related Permits and Approvals – A water system approval may be needed from Washington State Department of Health (DOH) for new water systems, alterations to existing systems, and new sources of supply (see below, **Section 540.25**).

Interagency Agreements – None applicable.

Processing Time – Depending on the complexities of water availability, the number of other applications on file, and water use in the watershed, a decision on a new water right may take anywhere from months to years. Ecology has a substantial backlog of pending applications and has adopted priorities for processing these requests.

Fees - Varies, \$10 minimum.

(2) How to Apply

Applications for a new water right, changed water right, or assignment of water right, and other forms can be downloaded from:

http://www.ecy.wa.gov/programs/wr/forms/forms.html

JARPA - Not applicable.

Pre-application Conference – Advisable for most applications.

Special Information Requirements – Varies by whether the application is a new source, change of use, or change of ownership.

Public Notice – Published by the applicant after Ecology has accepted the application.

Submitting the Application – Submit the completed application form with appropriate maps or other information to the Ecology Regional Office where the project is located.

Agency and Public Review – Once an application is complete and accepted, Ecology sends WSDOT a legal notice of the application to publish in the county (or counties) where water is or will be withdrawn, stored, and used. The notice is to be published once a week for two consecutive weeks, followed by a 30-day public comment period.

After Ecology receives an affidavit of publication from WSDOT, the agency begins an investigation. Ecology can deny, approve, or approve with conditions.

Appeal Process – Within 30 days after being notified of a decision, WSDOT or other interested parties may appeal Ecology's decision to the state Pollution Control Hearings Board.

(3) For More Information

Please see **Chapter 433**, Groundwater, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

Ecology's web site has more information, including application forms and instructions; policies, procedures and case law; and frequently asked questions. See:



Click on Programs, then Water Resources, then Water Right Information.

Or by direct link:



Ecology has prepared schematic diagrams illustrating the application and review process for obtaining a new or changed water right. The process for obtaining a new water right is in **Exhibit 540-11** and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/ Water_Rights_New_Schematic.pdf

The process for changing a water right is in Exhibit 540-12 and online at:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/change_water_right.pdf

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For additional assistance from Ecology, contact Water Resources staff at the Ecology regional office in which the project is located. Contacts are online at:

http://www.ecy.wa.gov/org.html

The statewide Water Resources Program can be reached by phone at 360-407-6600, and by fax at 360-407-7162.

(5) Information Last Updated April 27, 2005.

PUBLIC WATER SYSTEM APPROVALS – NEW OR ALTERATIONS TO EXISTING SYSTEMS

(1) Overview

Under state law, the DOH has review and approval authority over water system plans, project reports, and construction documents for new public drinking water systems and alterations or additions to existing systems. In many areas, the local health department does the review and approval for smaller systems (see Section 550.10).

WSDOT may occasionally need to design and construct a new public water system when developing a new safety rest area, ferry terminal or maintenance facility if no municipal connection is available. Because of the number of customers served, a rest area would be considered a Group A system, subject to the requirements of the federal Safe Drinking Water Act and regulations administered in Washington by DOH. A maintenance facility with less than 15 employees would be considered a Group B system, subject to state and local requirements for water quality and operations; approvals are usually obtained from the county health authority.

The two-part approval process for Group A non-community systems begins with justification and design review for a specific project, and then detailed construction documents. (Group A community (residential) systems have increased planning requirements that are significantly more complex.) Construction is not authorized until DOH approvals are received. Upon project completion, the professional engineer assigned to the project signs a document certifying that the project was constructed according to approved plans. The project/water system is then authorized to operate, and obligated to follow regulations for duties like routine water quality testing.

Agency Issuing Permit – Washington State Department of Health Office of Drinking Water (ODW) or local health department. Three regional offices handle specific areas of the state, as shown on the ODW web site:

www.doh.wa.gov/ehp/dw

Statutory Authority – RCW 43.20A, WAC 246-290 (Group A systems), WAC 246-291 (Group B systems); WAC 246-294 (Operating Permit); 42 USC Chapter 6A (Safe Drinking Water Act); 40 CFR 141 and 143.

Regulated Activities – Furnishing water to two or more service connections for human consumption and domestic use, including governmental, commercial, industrial or irrigation. WSDOT needs a water system approval for construction of a new facility such as a rest area, maintenance facility, or ferry terminal, even if exempt from a water right requirement.

Exempt Activities – Non-consumptive uses like irrigation, construction, or sanitary sewer/septic.

Geographic Extent – State of Washington (divided into three regions).

Types of Permits – Water System Construction and Operation Approval. If a Group A system, Operating Permit.

Prerequisite Permits and Approvals – For Group A community systems (not non-community systems) DOH Office of Drinking Water coordinates review and approval of water system plans with Ecology's Water Resources Program for water rights issues. DOH withholds approval of water system plans if Ecology takes an appealable action with respect to the water rights. SEPA is normally completed as part of the overall project.

Related Permits and Approvals – A water right from Ecology may need to be obtained for withdrawal of surface or groundwater (see above, Section 540.25). Before construction, the well site must be inspected and approved by the local health authority. Special emphasis is placed on the sanitary control area – a zone of specific size where contamination threats are not allowed – around the water source that protects the source. Then the well driller obtains a Water Well Construction Permit from Ecology and the well is drilled and tested. After DOH approval of the water system design, construction can begin. When construction is complete, an operating permit must be obtained from DOH (Group A systems) or approval given by the local health authority (Group B systems). Note that in some counties, the Group B reviews are conducted by DOH.

Interagency Agreements – None applicable.

Processing Time – Varies depending on system class: new Group A Community systems, generally within 90-120 days; Group A Non community and Group B, usually less. Project reviews have a 30 day turnaround; approval time depends on the completeness of the design submittal.

Fees – Varies depending on type of approval, system class, and number of services.

(2) How to Apply

For Group A systems, the standard project submittal includes a Water System Plan (only applies to community systems), Project Report, and Construction Documents. Three other forms are also required: Project Approval Application, Water System Plan Checklist (only applies to community systems), and Construction Completion Report. The latter is due at project completion; the others come with the initial submittal. A pre-plan meeting with DOH staff is advised for development of a water system plan (only applies to community systems).

In addition, if the project involves approval of a new source or increased system physical capacity, a completed Water Right Self-Assessment Form must also be included in submittal package.

For Group B systems, contact the local health department for application requirements. Most have a standard workbook to be completed and submitted.

JARPA – Not applicable.

Pre-application Conference – Advisable for Group A systems. Contact the regional office.

Special Information Requirements - None.

Public Notice - None.

Submitting the Application – Submit Group A applications and engineering documents to the DOH Office of Drinking Water regional office.

Southwest: Post Office Box 47823, Olympia, Washington 98504-7823;

Northwest: 20435 – 72nd Avenue S, Suite 200, Kent, Washington 98032;

Eastern: 1500 West 4th Avenue, Suite 305, Spokane, Washington 99204.

Telephone 800-521-0323. Submit Group B applications to the local health

Agency and Public Review - Not applicable.

authority, or to DOH if the county does not handle them.

Appeal Process – The purveyor may formally appeal the decision of DOH through procedures in WAC 246-10.

Post-permitting Requirements – The water system will have on-going monitoring and reporting requirements, as specified by WAC. Details may be obtained from the regional office.

(3) For More Information

Please see **Chapter 433**, Groundwater, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

Detailed information is available online at the DOH Office of Drinking Water web site:



The *Water System Design Manual* is a 300-page guidance document that serves as a start-to-finish reference for designers of water systems, including discussion of construction documents, plan approval, water sources, and reservoir and booster pump station design. The manual can be accessed online at:

http://www.doh.wa.gov/ehp/dw/publications/design.htm

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For assistance from DOH, contact Office of Drinking Water regional staff:

Southwest – 360-664-0768 Northwest – 253-395-6750 Eastern – 509-456-3115

Current contacts are online at:

http://www.doh.wa.gov/ehp/dw/Staff_Lists/dwnames.htm

For information on Group B systems, contact Dennis Campbell at DOH, 360-236-3158, dennis.campbell@doh.wa.gov. Office of Drinking Water headquarters can be reached by phone at 800-521-0323 or 360-236-3100, and by fax at 360-236-2253.

(5) Information Last Updated May 13, 2005.

DAM CONSTRUCTION PERMIT

(1) Overview

Under state law, Ecology is responsible for regulating dams that capture and store at least 10 acre-feet of water or liquid waste. Before constructing, modifying, or repairing such a dam, a Dam Construction Permit is required. Through plan review and construction inspection, Ecology's Dam Safety Office (DSO) helps ensure these facilities are properly designed and constructed to secure the safety of human life and property.

Agency Issuing Permit - Washington State Department of Ecology.

Statutory Authority - RCW 90.03.350; WAC 173-175.

Regulated Activities – Constructing, modifying, or repairing a dam that captures and stores at least 10 acre-feet of water or liquid waste. An example of where WSDOT might need this permit would be for a highway project adjacent to a reservoir where modification required reconstruction of the reservoir embankment.

Exempt Activities – Federally owned dams or hydropower dams regulated by the Federal Energy Regulatory Commission are exempt from state regulation.

Geographic Extent - State of Washington.

Types of Permits - Individual Dam Construction Permit.

Prerequisite Permits and Approvals – SEPA is completed by Ecology as part of the permit process. A water right and a reservoir permit may be required for the impoundment.

Related Permits and Approvals – A Reservoir Permit is also required for construction of any dam or dike that will be capable of impounding water to a depth of 10 feet or more at any point, or will impound a volume of 10 acre-feet or more at normal pool level (see below, Section 540.25). This permit authorizes use of the impounded water, whereas the Dam Construction Permit authorizes construction after Ecology is assured that safety standards will be met.

A number of other local, state, and federal permits and approvals are often required for the construction of a dam. These include the Dam Safety – Operation and Maintenance Plan and Simplified Emergency Action Plan Form. Contact Ecology's Office of Regulatory Assistance for more information (1-800-917-0043).

Interagency Agreements – None applicable.

Processing Time – In general, allow 60 days for plan review by the Dam Safety Office. During the summer and fall construction season, workload for construction inspection and periodic inspection of existing dams reduces the time for plan review. Where possible, applicants are requested to submit plans in the winter or early spring to allow sufficient lead time.

Fees – Permit fees range from \$1,400 to \$56,000 depending on the size of the project, calculated based on height and crest length of the dam. The complete fee schedule is in WAC 173-175-350.

(2) How to Apply

Project plans must be designed to conform with regulations in WAC 173-175 and guidance contained in Part IV of the Dam Safety Guidelines.

An application for a construction permit must be submitted when the first substantive engineering information about the proposed project becomes available, usually when conceptual plans are completed. The form is available online at:



http://www.ecy.wa.gov/pubs/ecy07038.pdf

JARPA - Not applicable.

Pre-application Conference – Advisable but not required.

Special Information Requirements – See application requirements.

Submitting the Application – Submit the application, with application fee, to:

Washington State Department of Ecology Dam Safety Office PO Box 47600 Olympia, WA 98504-7600

Agency and Public Review - Submittal of the Dam Construction Permit application form initiates Ecology's plan review process. The DSO reviews engineering reports, plans and specifications, and the construction inspection plan to ascertain that the proposed project will be designed and constructed in a manner which will reasonably secure safety to life and property. Changes may be required to conform to dam safety regulations and guidelines or accepted engineering practice.

Appeal Process – Same process as for Water Rights (see above).

Post-permitting Requirements – Within 30 days after dam construction or modification is completed, the project engineer is required to submit a Declaration of Dam Construction Completion stating that the project was or was not constructed in accordance with the plans, specifications construction change orders approved by the Dam Safety Office.

For More Information (3)

For additional resources, including engineering guidelines, see the Dam Safety Office web page at:



http://www.ecv.wa.gov/

Click on Programs, then Water Resources, then Dam Safety Office, then Engineering Guidelines.

Or by direct link:



http://www.ecy.wa.gov/programs/wr/dams/dss.html

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For assistance from Ecology, contact information for the Dam Safety Office staff is online at:

http://www.ecy.wa.gov/programs/wr/dams/dss.html#contacts

(5) Information Last Updated April 27, 2005.

RESERVOIR PERMIT - IMPOUNDING OF WATER

(1) Overview

Under the state water code, a Reservoir Permit from Ecology is required before constructing any barrier across a stream, channel, or water course, if the barrier will create a reservoir. A reservoir is defined as a dam or dike that will store water to a depth of 10 or more feet at its deepest point, or one that will retain 10 or more acre-feet of water. (Note that a finished water storage reservoir on a water distribution system is regulated by the Washington State Department of Health; see information regarding public water systems, above.)

WSDOT may need this permit for wetland or wildlife mitigation sites where an impoundment of water is proposed. Unless otherwise specified, a reservoir permit will allow the permit holder to fill the reservoir once a year and to use the specified quantity of water, as a maximum, for the purposes stated in the permit. The permit specifically states the period during the reservoir may be filled, usually during winter or runoff periods.

Agency Issuing Permit – Washington State Department of Ecology *Statutory Authority* – RCW 90.03.370; WAC 173-175.

Regulated Activities –Any proposed impounding structure that obstructs a stream or watercourse; any excavation and/or dike to be built off-channel from any stream or watercourse; and any impounding structure that will increase the depth or capacity of an existing reservoir so it equals or exceeds the above standards.

Exempt Activities – A reservoir permit and/or appropriation permit is not required if the reservoir is used exclusively for silt retention or flood control purposes. However, approval of plans and specifications may be required.

Geographic Extent – State of Washington.

Types of Permits – Individual Reservoir Permit.

Prerequisite Permits and Approvals – SEPA is completed by Ecology as part of the permit process.

Related Permits and Approvals – Normally, a reservoir permit application is accompanied by an application for a permit to use water (see above, Section 540.25, Water Right). This application describes the intended beneficial uses of water that will be withdrawn from the reservoir. A separate appropriation application may be needed if additional water use is required.

A Dam Construction Permit is also required for construction, modification or repair of any dam or dike that will store 10 or more acres of water or liquid waste (see above, Section 540.25). This permit authorizes construction after Ecology is assured that safety standards will be met, whereas the Reservoir Permit authorizes use of the impounded water.

Interagency Agreements – None applicable.

Processing Time – Varies depending on project complexity.

Fees – A statutory \$10 examination fee must accompany all applications for a reservoir permit. This basic fee applies to applications for storage of up to 1,000 acre-feet of water. For larger impoundments, additional examination will be requested.

(2) How to Apply

The Reservoir Permit application can be downloaded from the Dam Safety Office web site or directly at:

http://www.ecy.wa.gov/biblio/ecy040160a.html

JARPA – Not applicable.

Pre-application Conference – Advisable but not required.

Special Information Requirements – Information on the use and capacity of the reservoir, and a legal description of the location of the structure.

Public Notice – A legal notice must be published for two succeeding weeks after submitting the permit to Ecology.

Submitting the Application – The application is submitted to the Ecology Regional Office where the project is located. Regional offices are online at:

http://www.ecy.wa.gov/org.html

Agency and Public Review – Same process as for Water Right (see above).

Appeal Process - Same process as for Water Right (see above).

(3) For More Information

For additional resources, including general information on reservoir permits and application instructions, see the Dam Safety Office web page at:

http://www.ecy.wa.gov/

Click on Programs, then Water Resources, then Dam Safety Office.

Or by direct link:

http://www.ecy.wa.gov/programs/wr/dams/dss.html

Instructions for the Application for a Reservoir Permit can be accessed at:

http://www.ecy.wa.gov/biblio/ecy040182.html

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For

assistance from Ecology, contact information for the Dam Safety Office staff is online at:

ttp://www.ecy.wa.gov/programs/wr/dams/dss.html#contacts

(4) Information Last Updated May 13, 2005.

TEMPORARY EXCEEDANCE OF WATER QUALITY STANDARDS – TURBIDITY MIXING ZONE

(1) Overview

State regulations authorize Ecology to issue short-term water quality modifications on a site-specific basis if necessary to accommodate essential activities, respond to emergencies or otherwise protect the public interest. Two of the conditions covered by the regulations – aquatic application of pesticides and control or eradication of noxious weeds – are now approved through an NPDES Programmatic Permit (see Section 540.08). The third, temporary increases in turbidity during and immediately after in-water or shoreline construction activities, is covered through special conditions attached to an Implementing Agreement between Ecology and WSDOT and summarized here. Conditions attached to the agreement require WSDOT and its contractors to comply with state water quality standards and define circumstances when temporary exceedance of the turbidity standard is authorized.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – WAC 173-201A.

Regulated Activities – Shoreline or in-water work resulting in a temporary increase in turbidity associated with the disturbance of sediments within a defined mixing zone. Use of a turbidity mixing zone is intended for brief periods – a few hours or days – not the duration of construction. Use of the mixing zone is authorized only after all other necessary local and state permits and approvals have been received and after implementation of appropriate BMPs to avoid or minimize disturbance in in-place sediments and exceedance of turbidity criteria. Within the mixing zone, the turbidity standard is waived, and all other applicable water quality standards remain in effect.

Exempt Activities – Not applicable.

Geographic Extent – Shorelines and waters of the state.

Types of Permits – No permit is required. The Implementing Agreement acts as the approval (see below, Interagency Agreements).

Prerequisite Permits and Approvals – Activities must comply with all water quality protection related conditions contained in the Washington State Department of Fish and Wildlife (WDFW) Hydraulic Project Approval, including time limitations (see Section 540.15).

Related Permits and Approvals – Section 401 Water Quality Certification (see Section 540.02).

Interagency Agreements – The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including

compliance with Section 401 Certifications, Section 402 NPDES permits, Implementing Agreements, and other Ecology Orders and approvals.

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards is designed to ensure that WSDOT activities are in compliance with state surface water quality standards through general and activity specific conditions. General conditions deal with concrete work, erosion control, spill response, and monitoring. Activity specific conditions address several categories of work that may effect surface water quality standards. This document is expected to be revised during the fall of 2005 and be renewed by the spring of 2006.

Both agreements are online at the WSDOT's ESO compliance web site or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/default.htm#interagency

Fees - None.

(2) How to Apply

Not applicable. For more information, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office by contacting Gregor Myhr, Permit Program Manager, 360-705-7487, or email MyhrG@wsdot.wa.gov.

(3) Information Last Updated April 27, 2005.

SOIL BORING NOTICE OF INTENT – MONITORING AND RESOURCE PROTECTION WELLS AND GEOTECHNICAL INVESTIGATIONS

(1) Overview

Soil borings usually are done in the scoping phase of several roadway construction activities and are often needed:

- To inventory possible Hazardous Waste contamination in the soil of a potential property considered for right-of-way purchase.
- To investigate the geo-tech properties of the existing soil when designing bridge components such as piers and abutments.
- To investigate the geo-tech properties on proposed rock cuts or steep soil embankment cuts associated with corridor improvements.

Soil boring may be performed by WSDOT's Headquarters Materials Lab staff and equipment, or by a contractor. No permit is required unless the boring is followed by de-commissioning of a monitoring well.

When a monitoring well is commissioned in one of these soil borings to monitor hazardous waste movement or contamination levels over an extended period, it is regulated through a Notice of Intent (NOI) submitted to Ecology. The decommissioning of monitoring wells is regulated by Ecology and sometimes by the county health authority.

For further information, contact the WSDOT ESO Hazardous Materials Program or see Ecology's web site.

http://www.ecy.wa.gov/

Click on Programs, Water Resources, then Well Construction and Licensing. Or by direct link:

ttp://www.ecy.wa.gov/programs/wr/wells/wellhome.html

Agency Issuing Permit - Washington State Department of Ecology.

Interagency Agreements – None applicable.

(2) How to Apply

Notification forms are available from Ecology regional offices. Submit the NOI and check or money order payable to the Department of Ecology, P.O. Box 5128, Lacey, WA 98509-5128. Fees are variable. There is no review process or expiration date. WSDOT has six months from the day Ecology receives the NOI to request a refund.

(3) Information Last Updated April 27, 2005.

BEAVER TRAPPING ON WSDOT PROPERTY

(1) Overview

WSDOT may need to trap beavers when they block culverts with their dambuilding activity and threaten public safety through the flooding and erosion that follow. Under a statewide initiative passed in 2000, non-live traps can be used only under specific criteria, including the requirement that the animal is creating a public safety problem. No permit is required if a live trap is used. However, the person performing the trapping must have a trapping license from WDFW.

For other types of traps, a permit is required. A one-page animal trapping form must be submitted, allowing several days for WDFW to process the application. Details and links are on WSDOT's ESO web site:

http://www.wsdot.wa.gov/environment

Click on Programmatic Permits, then Beaver Trapping on WSDOT Property under Permitting Tools and Help

Or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/BeaverTrapping.htm

Agency Issuing Permit – Washington State Department of Fish and Wildlife *Statutory Authority* – RCW 77.15.194; WAC 232-12-142.

Regulated Activities – The take of problem animals by methods other than live trapping when live trapping methods are not justified or feasible.

Processing Time – 1 to 2 days.

Fees - No fee.

(2) How to Apply

The application can be viewed and completed on line. Once filled in, print out the application and follow the mailing instructions.

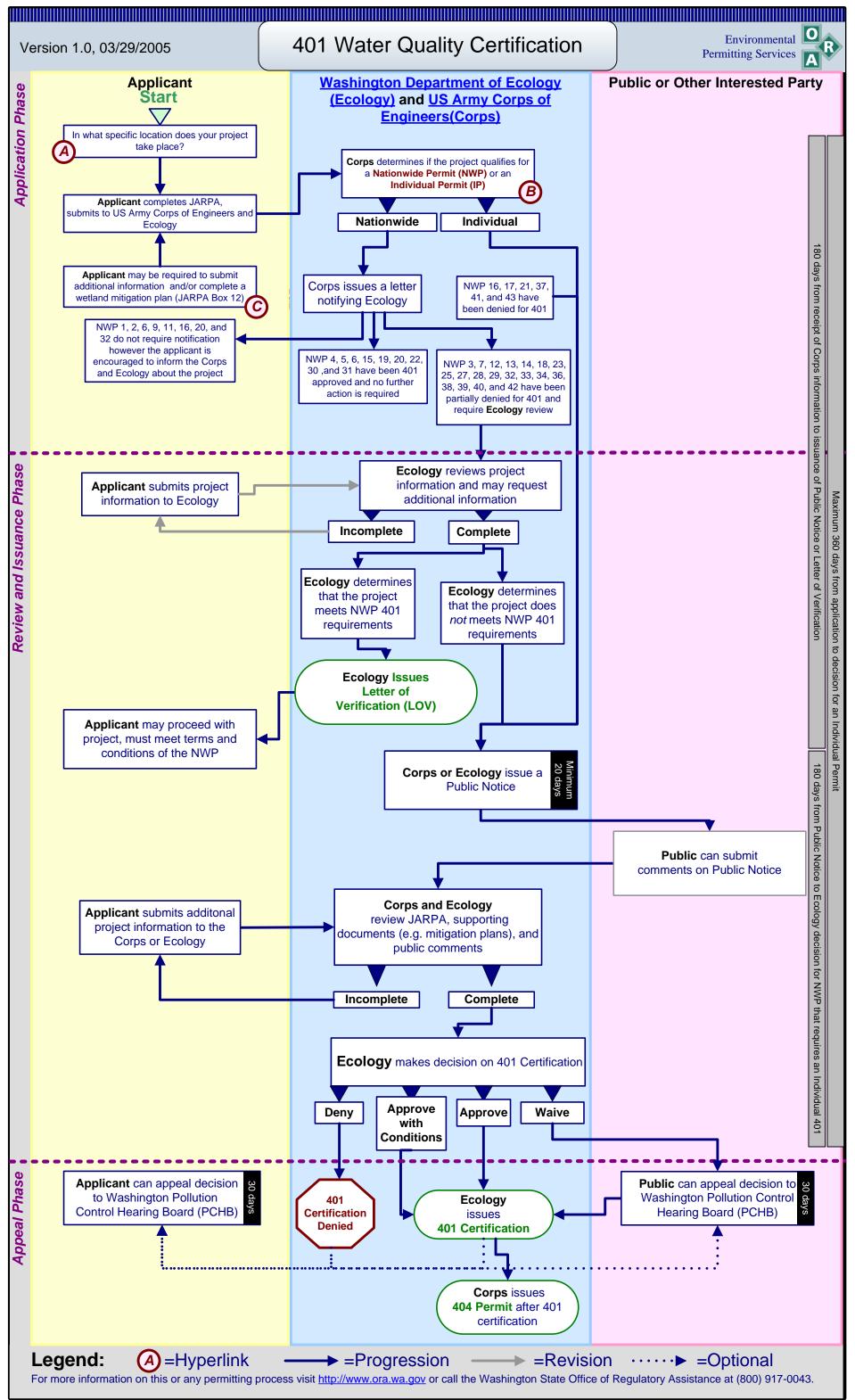
http://www.wsdot.wa.gov/environment/Programmatics/docs/ ApplicationPermitTrapAnimal.doc

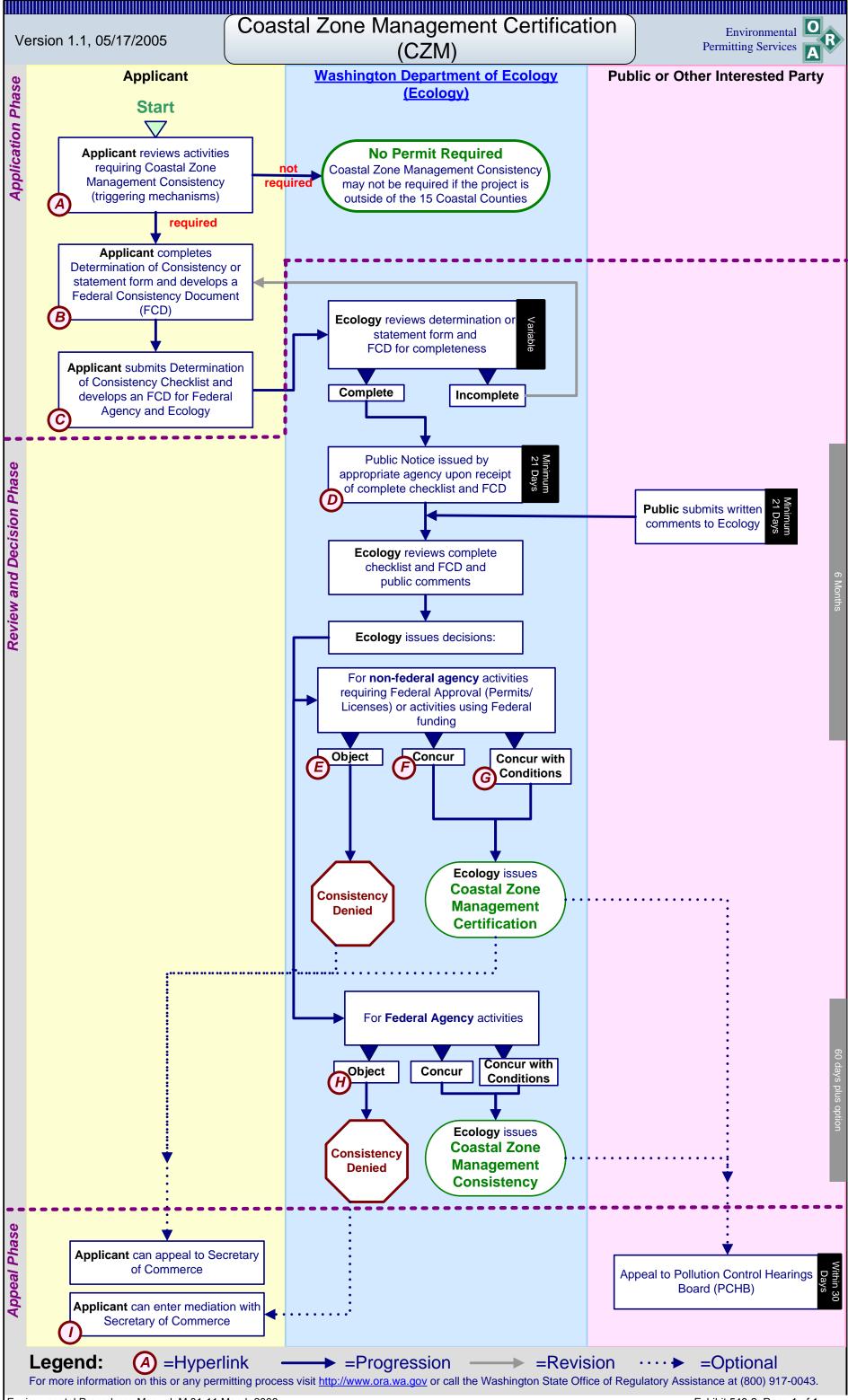
For more information, contact the WDFW Area Habitat Biologist and the WSDOT Regional Maintenance Environmental Coordinator.

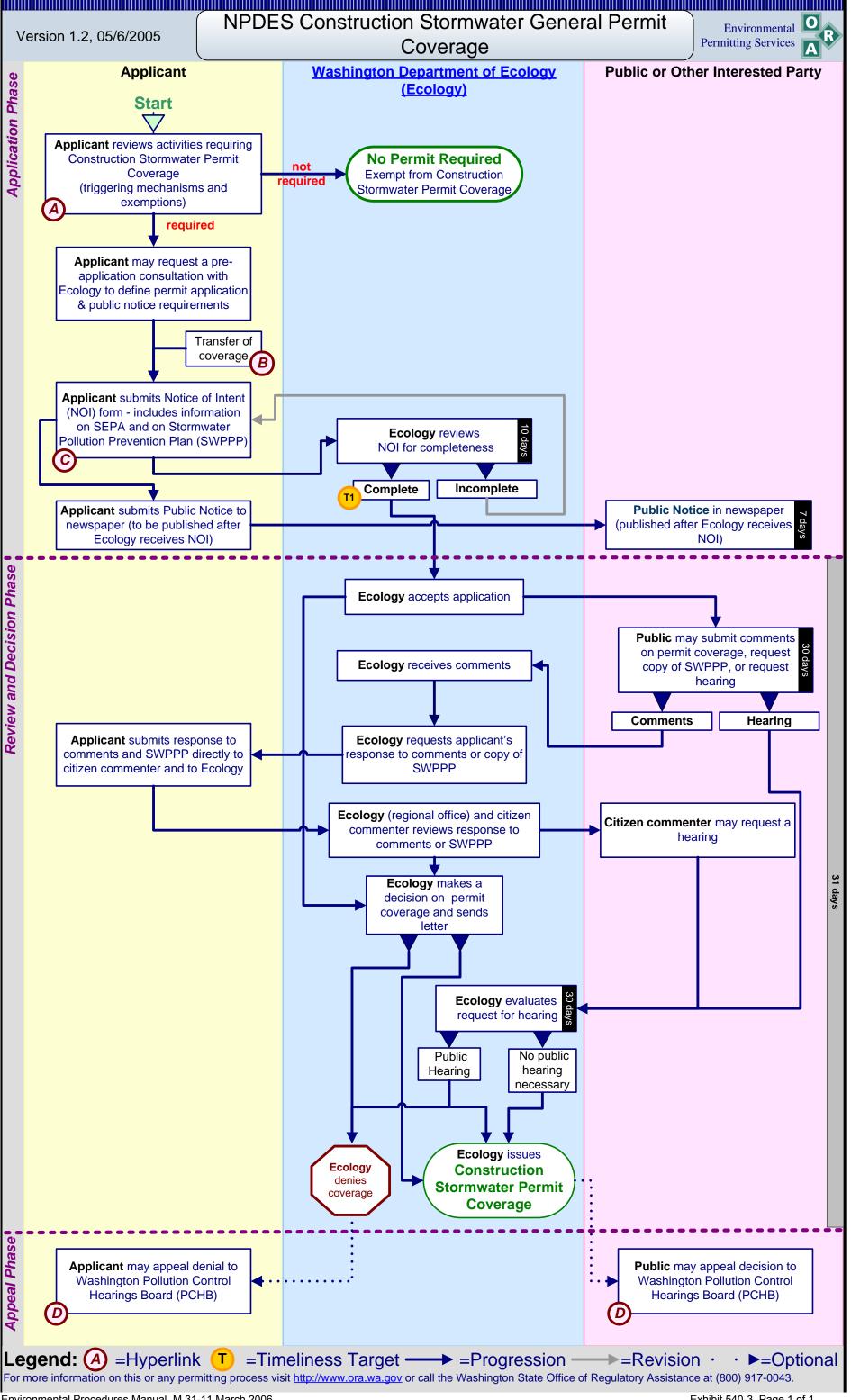
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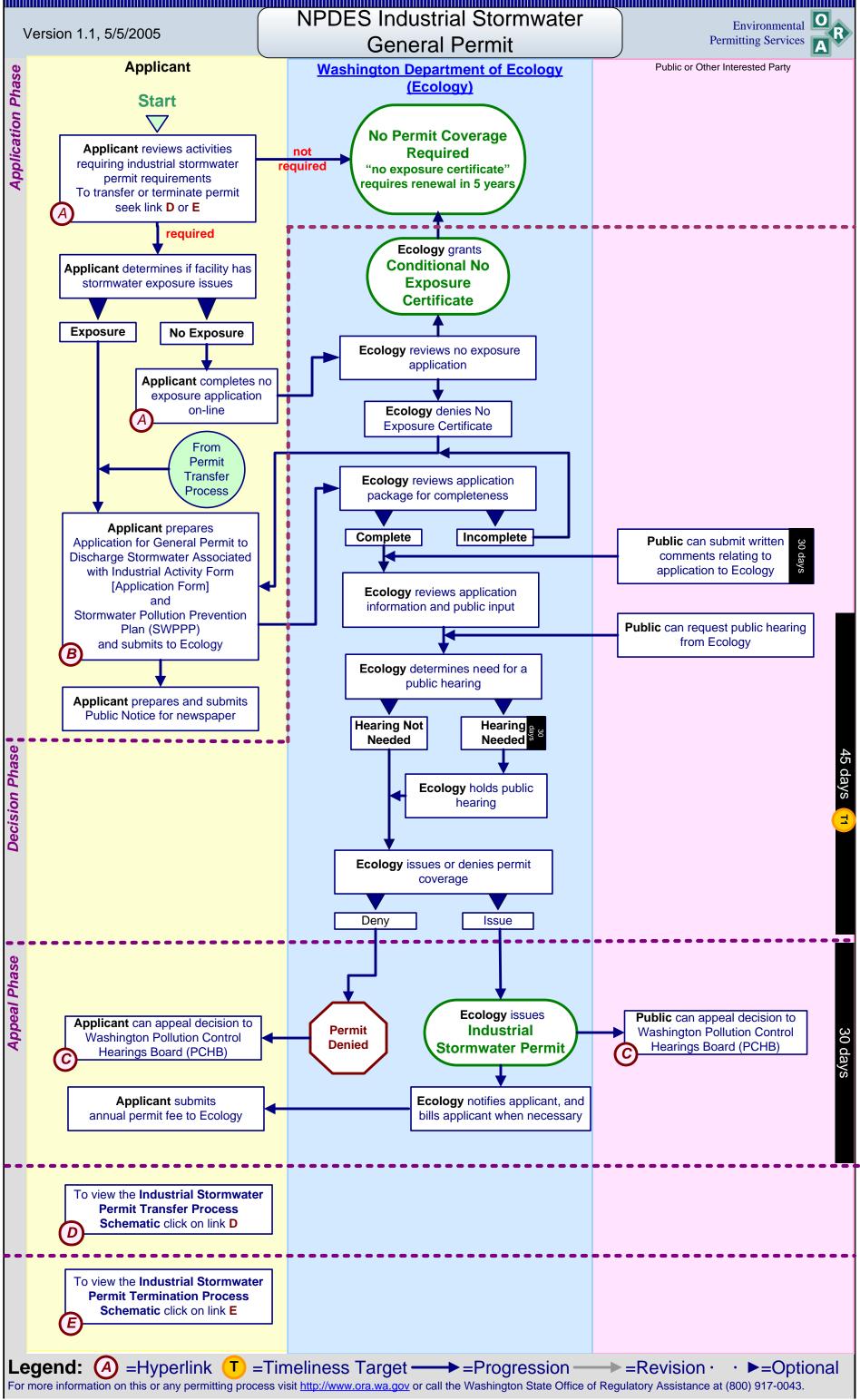
540.26 Exhibits

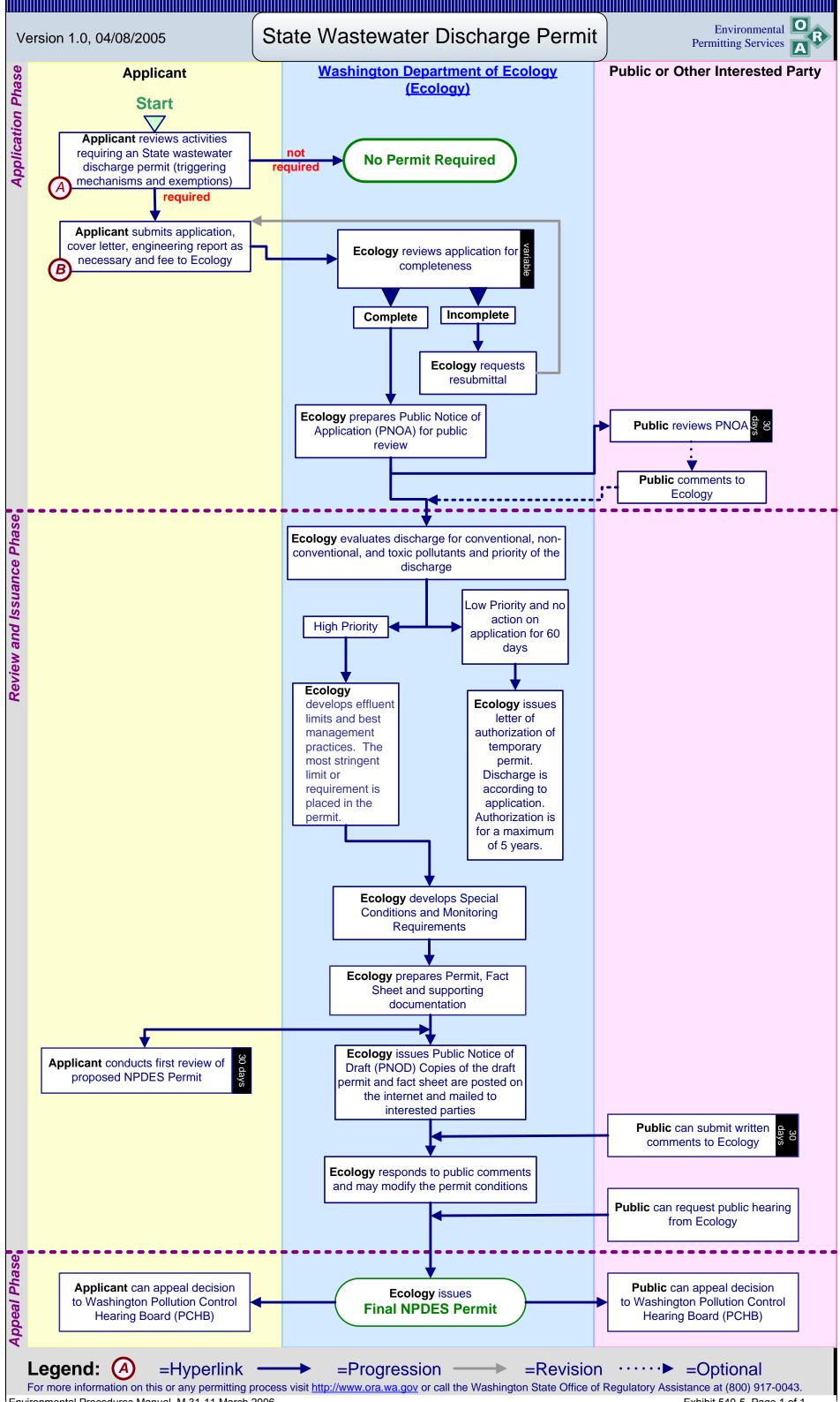
- *Exhibit 540-1* Ecology schematic illustrating the application and review process for Section 401 Water Quality Certification (Section 540.02).
- *Exhibit 540-2* Ecology schematic illustrating the application and review process for CZM Consistency Certification. (Section 540.03).
- Exhibit 540-3 Ecology schematic illustrating the application and review process for coverage under the NPDES Construction Stormwater General Permit. (Section 540.04).
- Exhibit 540-4 Ecology schematic illustrating the application and review process for coverage under the NPDES Industrial Stormwater General Permit. (Section 540.07).
- *Exhibit 540-5* Ecology schematic illustrating the application and review process for the State Waste Discharge Permit. (Section 540.12).
- **Exhibit 540-6** Ecology schematic illustrating the application and review process for the Hydraulic Project Approval. (**Section 540.15**).
- *Exhibit 540-7* Ecology schematic illustrating the application and review process for the Fish Habitat Enhancement Exemption (Section 540.15).
- *Exhibit 540-8* DOH schematic illustrating the application and review process for the On-Site Sewage Disposal Permit. (Section 540.21).
- *Exhibit 540- 9* Ecology schematic illustrating the application and review process for the Air Quality Notice of Construction. (Section 540.23).
- *Exhibit 540-10* Ecology schematic illustrating the application and review process for the RCRA Site Identification Number. (**Section 540.24**).
- *Exhibit 540-11* Ecology schematic illustrating the application and review process for obtaining a new Water Right (Section 540.25).
- *Exhibit 540-12* Ecology schematic illustrating the application and review process for changing a Water Right. (Section 540.25).

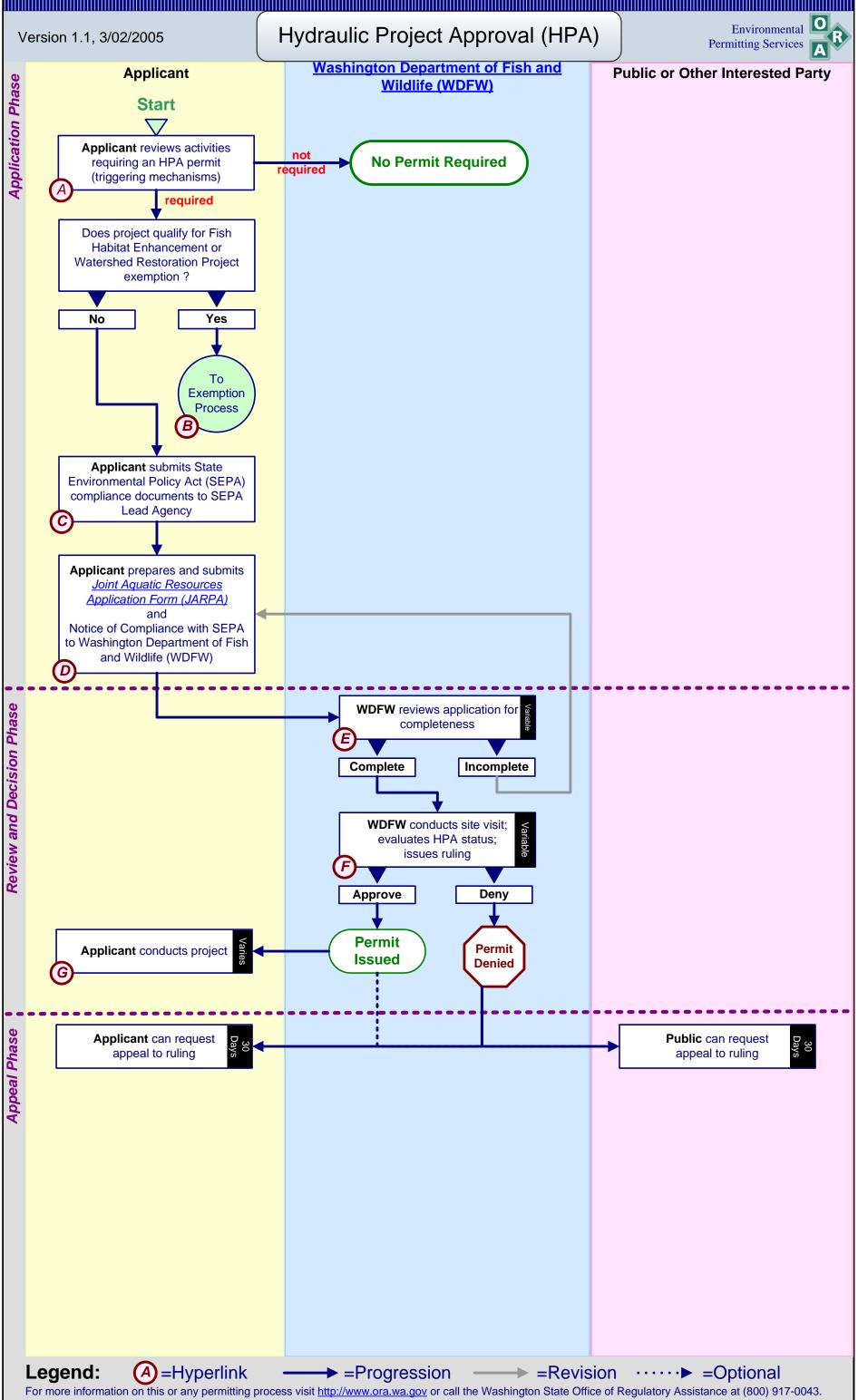


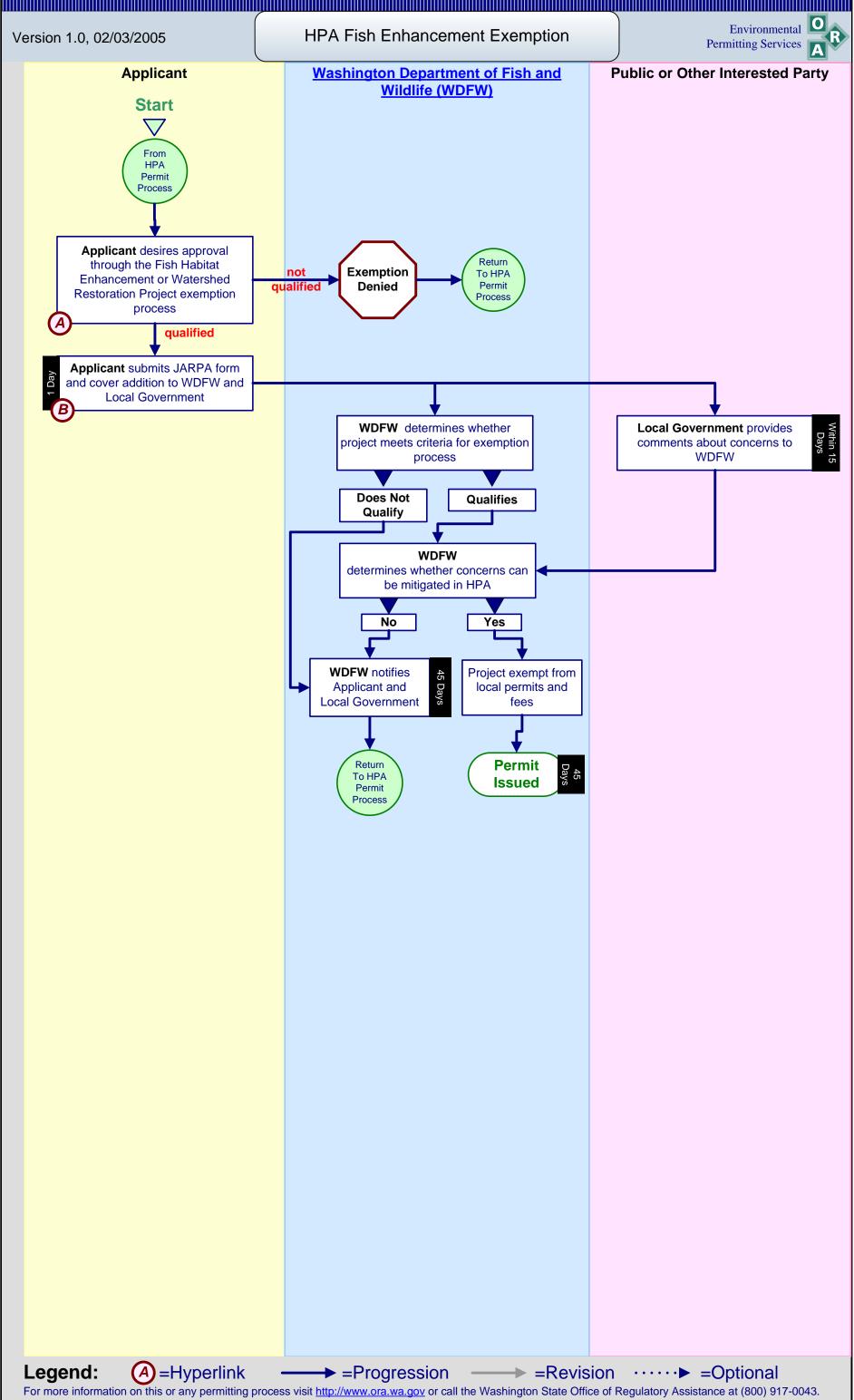


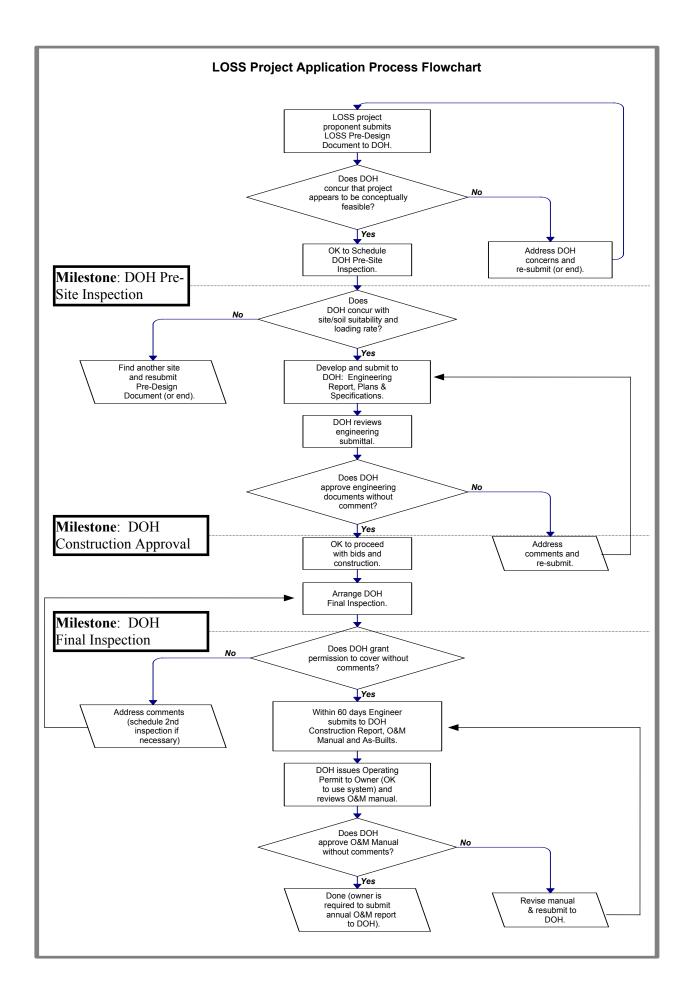


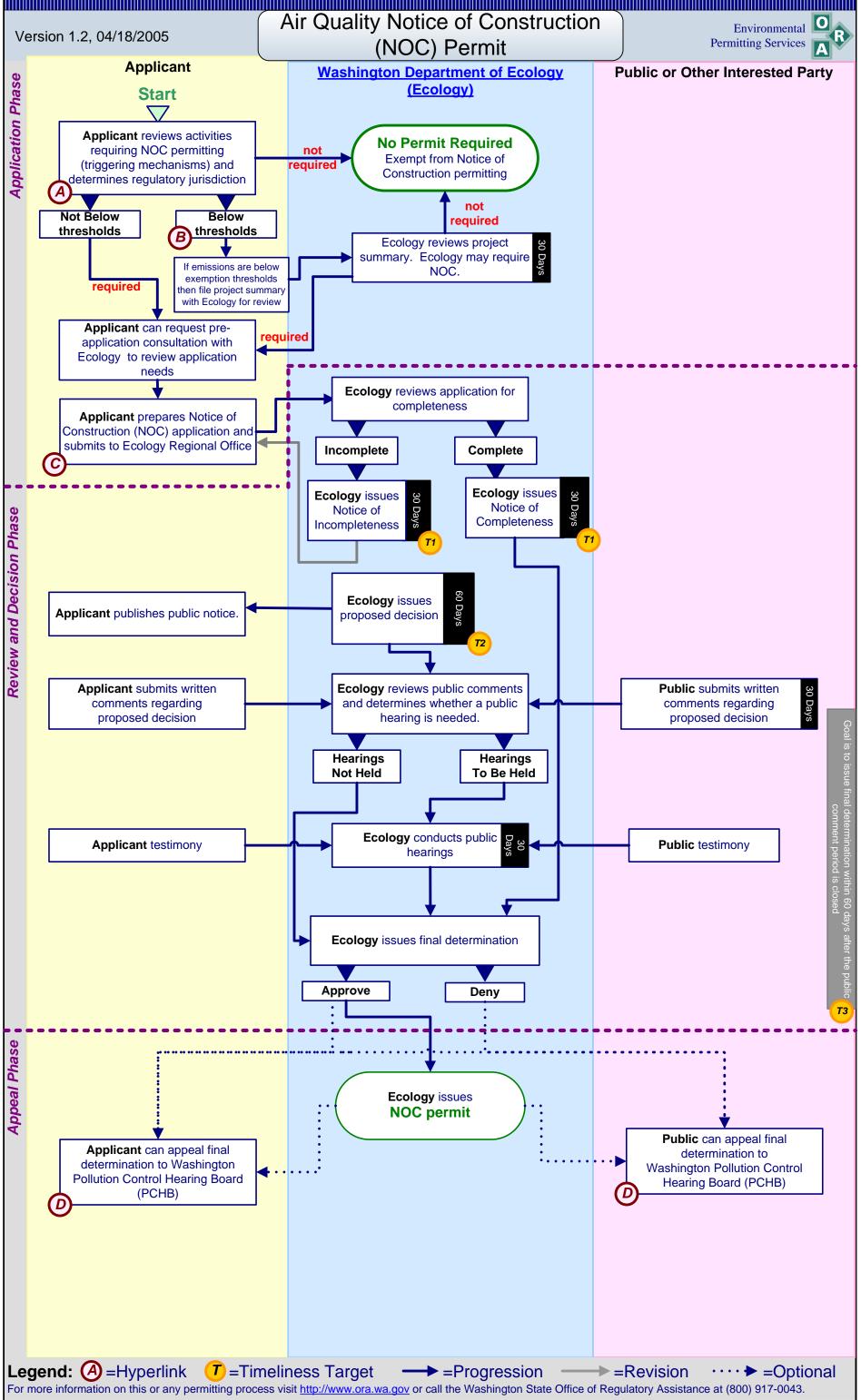


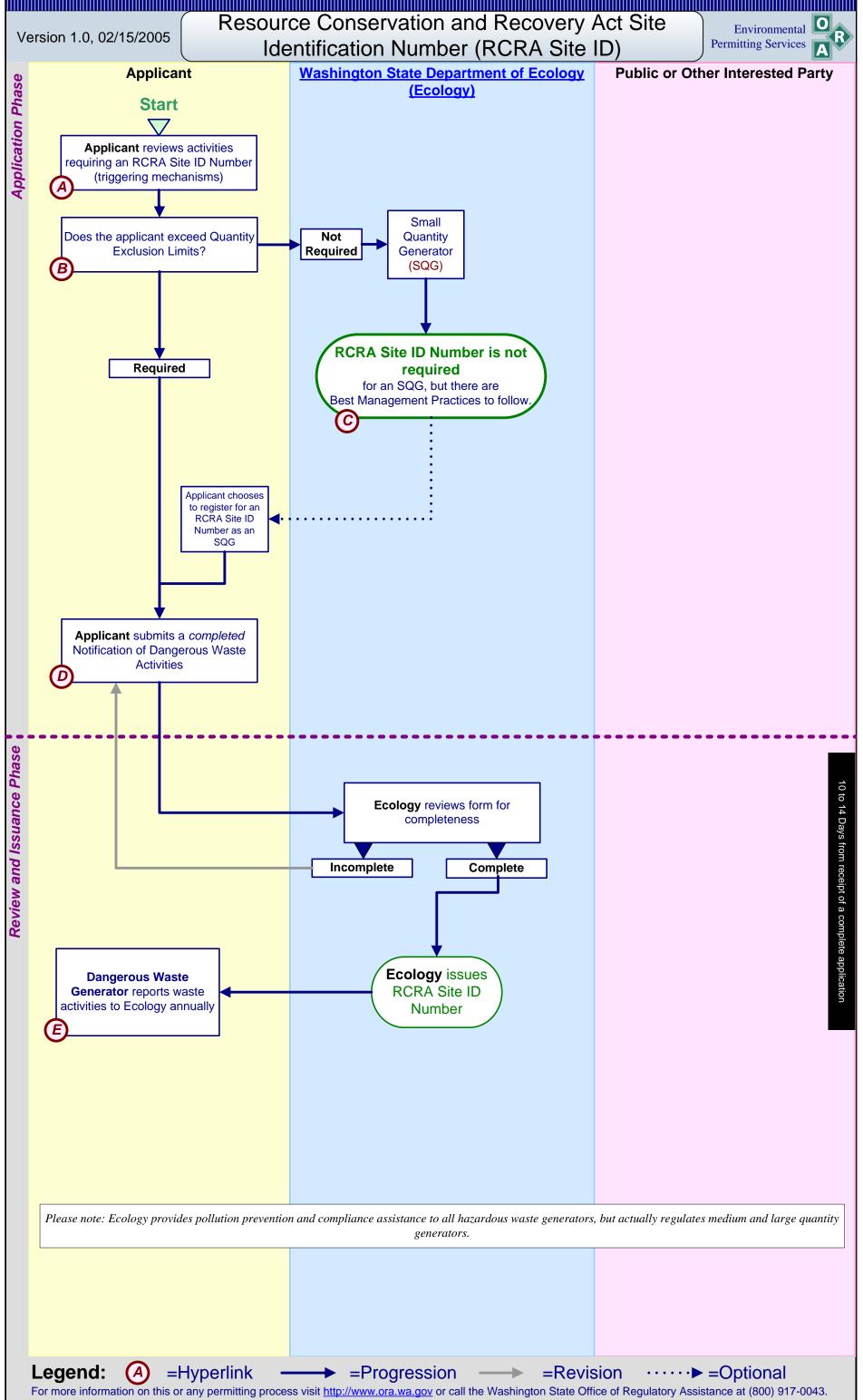


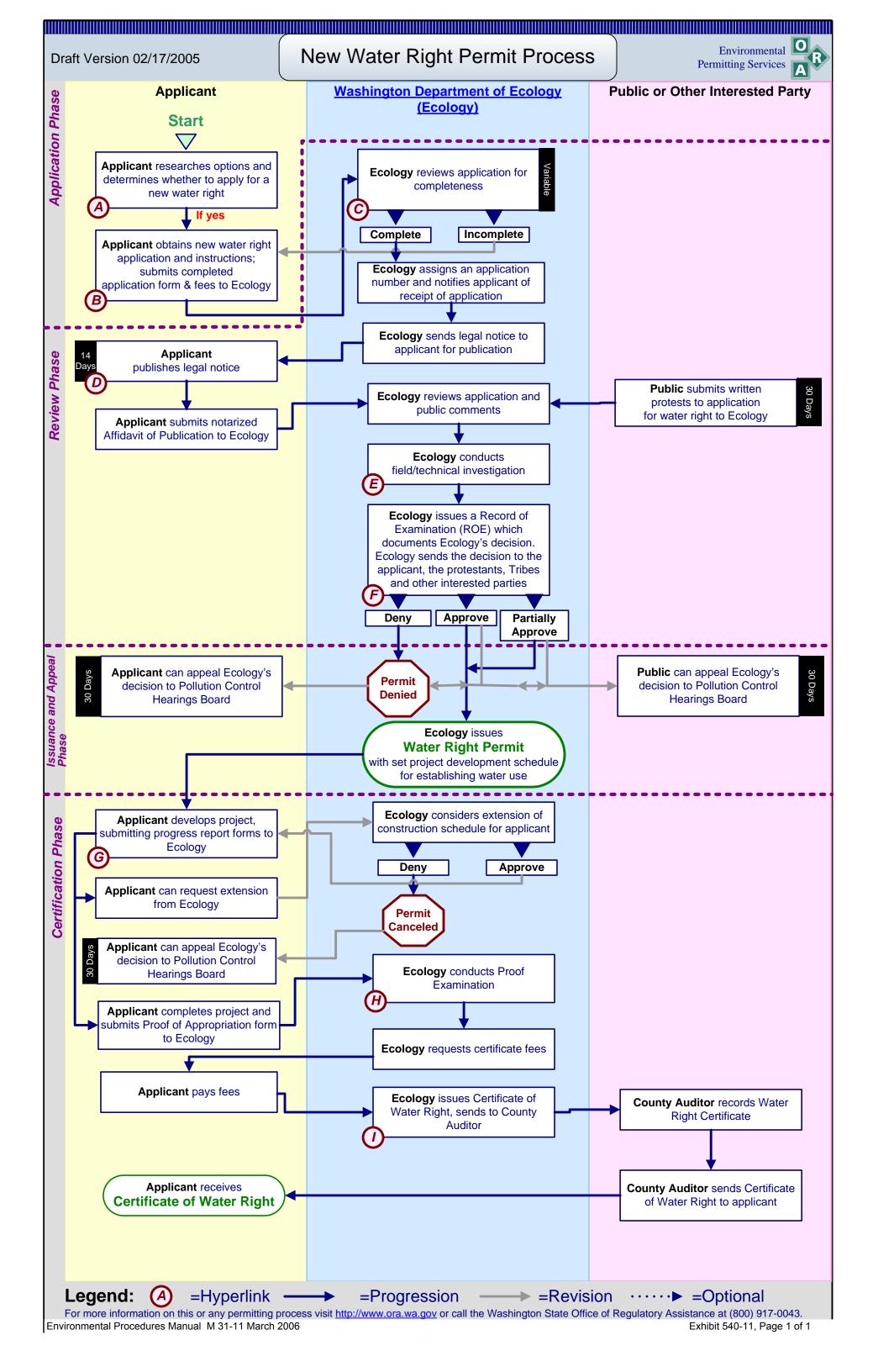


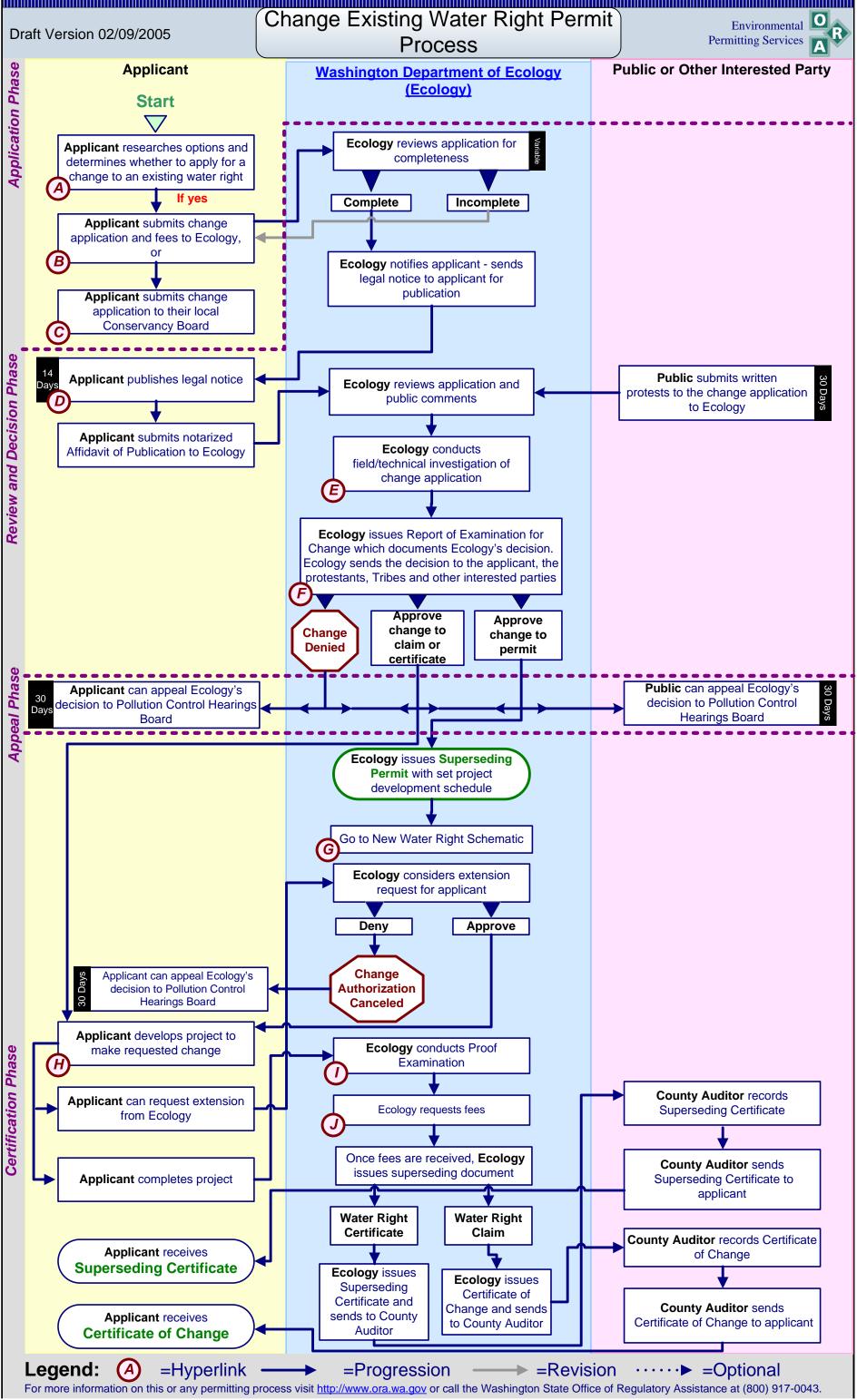


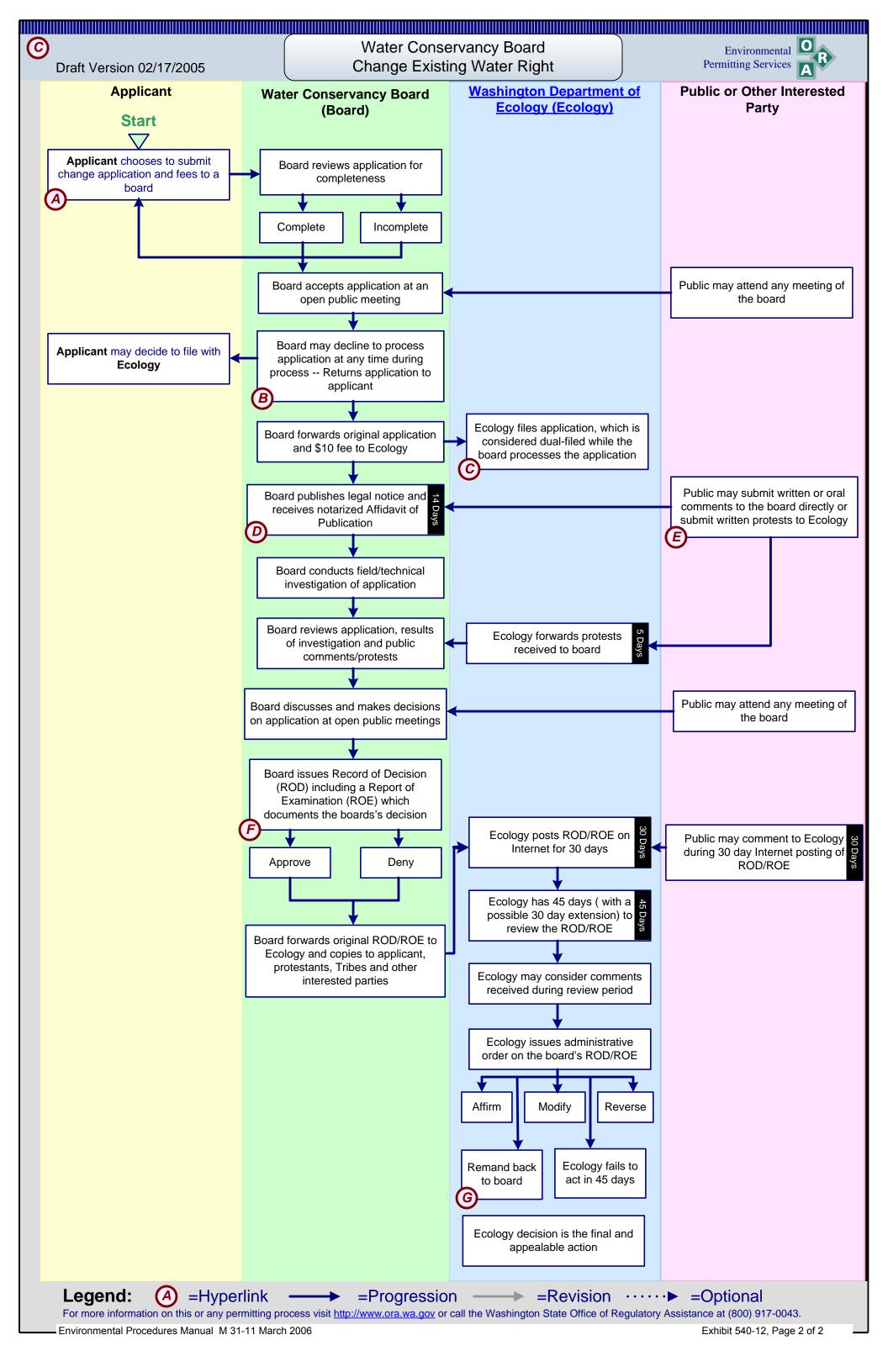












550.01	Introduction
550.02	Shoreline Permits
550.03	Floodplain Development Permit
550.04	Critical Areas Ordinance Compliance
550.05	Clearing, Grading, and Building Permits
550.06	Land Use Permits
550.07	Noise Variance – Nighttime Construction and Maintenance
550.08	Reserved
550.09	Reserved
550.10	Other Local Approvals
	Detour and Haul Road Agreements
	On-site Sewage Systems (Under 3,500 gpd)
	Water System Approval (non-public use)
550.11	Exhibits

Key to Icon



550.01 Introduction

Chapter 550 includes permits and approvals granted or issued by local jurisdictions, primarily cities and counties. The local approvals most often needed by WSDOT are delegated to local jurisdictions under state statutes: the Shoreline Management Act (shoreline permits), Flood Control Act (floodplain development permit and/or elevation certificate), and Growth Management Act (compliance with critical areas ordinances covering locally delineated wetlands, critical saltwater and freshwater fish and wildlife habitat, flood hazard reduction areas, aquifer recharge areas, channel migration zones, and geologically hazardous areas).

Local jurisdictions also may require WSDOT to obtain various permits and approvals such as a clearing, grading, and/or building permit for construction outside the right-of-way, a noise/vibration variance for nighttime construction activity, and a detour and haul road agreement. Local health authorities regulate air quality, on-site septic systems under 3,500 gallons per day, and approve new water systems for non-public use, either of which may be needed for a new WSDOT maintenance facility.

550.02 Shoreline Permits

(1) Overview

Shoreline permits are required under the Shoreline Management Act (SMA), which aims to "prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The SMA has three broad policies: to

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/.

encourage water dependent uses, protect shoreline natural resources, and promote public access.

The Washington State Department of Ecology (Ecology) approves local shoreline master programs, and relies on local jurisdictions to assure compliance with applicable laws and policies. Local governments are responsible for administering the regulatory program, including establishing a permitting system for shoreline development.

Permits are granted only when the proposed project is consistent with the provisions of the act, implementing regulations, and the local shoreline master program (WAC 173-27-150). After completion of the local process the permits are sent to Ecology for filing; Ecology only has authority to approve or deny Conditional Use Permits and Shoreline Variances.

Ecology has prepared schematic diagrams illustrating the application and review process for the Conditional Use Permit and Variance Permit (Exhibit 550-1); and for the Substantial Development Permit (Exhibit 550-2). The schematics are online at:

Conditional Use Permit and Variance Permit:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/shoreline conditional use variance schematic.pdf

Substantial Development Permit:

http://www.ecy.wa.gov/programs/sea/pac/ppds_info/shoreline_substantial_development_schematic.pdf

Agency Issuing Permit – Cities and counties.

Statutory Authority – RCW 90.58; WAC 173-15, 173-18, 173-20, 173-22, 173-26 and 173-27. Permit and enforcement procedures are at WAC 173-27. City and county ordinances also apply.

Regulated Activities – A Shoreline Substantial Development Permit is required for development of shorelines of the state. Substantial development means any development of which the total cost or fair market value exceeds \$5,000, or any development that materially interferes with the normal public use of the water or shorelines of the state (RCW 90.58.030).

Exempt Activities – The SMA exempts certain developments from the need to obtain a Substantial Development Permit, but not from compliance with applicable policies and regulations (WAC 173-27-040). Exemptions relevant to WSDOT are:

- Total cost or fair market value is less than \$5,000. (WAC 173-27-040)
- Normal maintenance or repair of existing structures or developments, including damage by fire, accident, or the elements.
- Emergency construction necessary to protect property from damage by the elements.
- Construction or modification of navigational aids such as channel markers and anchor buoys.

- Marking of property lines or corners on state-owned lands without interfering significantly with normal public use of the water.
- Removing or controlling aquatic noxious weeds.
- Certain watershed restoration projects.
- Certain fish or wildlife habitat or fish passage projects.
- Certain hazardous substance remedial actions.

Local jurisdiction(s) determine when exemptions from the permit requirements are appropriate.

Geographic Extent – "Shorelines" are all water areas of the state and their associated shorelands with these exceptions: (1) shorelines of statewide significance; (2) shorelines on streams upstream of a point where the mean annual flow is 20 cubic feet per second or less and the wetlands associated with such upstream segments; and (3) shorelines on lakes less than 20 acres and wetlands associated with such small lakes. (See RCW 90.58.030.)

"Shorelines of statewide significance" are designated in the SMA: Pacific Coast, Hood Canal and certain Puget Sound shorelines; all waters of Puget Sound and the Strait of Juan de Fuca; lakes or reservoirs with a surface acreage of 1,000 acres or more; larger rivers (1,000 cfs or greater for rivers in Western Washington, 200 cfs or greater east of the Cascade crest); and shorelands associated with all the above. The SMA defines these in more detail at RCW 90.58.030(2)(e).

Local jurisdictions maintain approved maps delineating the shorelines and shorelines of statewide significance within their boundaries.

"Shorelands" are lands extending for 200 feet from the ordinary high water mark; floodways and contiguous floodplain areas 200 from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters subject to the Act. Local governments may include the entire 100-year floodplain and GMA critical area buffers in their regulated "shoreland". (See RCW 90.58.030(2)(f).)

Types of Permits – There are three types of shoreline management permits: Substantial Development Permit, Conditional Use Permit, and Shoreline Variance.

- Substantial Development Permit (SDP): This permit is needed for any development that has a total cost or fair market value over \$5,000, or that materially interferes with normal public use of the water or shorelines of the state. Some projects also require Shoreline Conditional Use permits or Shoreline Variances. These are processed concurrently and are generally treated as one complete package.
- Conditional Use Permit: Conditional uses may be authorized by the local government if the proposed project is consistent with the SMA and local SMP, does not interfere with normal public use of public shorelines, is compatible with other uses in the area, and will cause no adverse effects to the shoreline environment or detriment to the public interest. Uses specifically prohibited in the local SMP may not be granted a conditional use permit (WAC 173-27-160).

• Shoreline Variance: The purpose of a Shoreline Variance is strictly limited to granting relief from specific bulk, dimensional, or performance standards set forth in the applicable SMP. It may be authorized when extraordinary circumstances are such that strict implementation of the SMP would impose unnecessary hardships on the applicant or thwart the policies of the SMA (WAC 173-27-170).

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required.

Related Permits and Approvals – Permits may be required from multiple jurisdictions. These permits may include:

- Local: Floodplain Development Permit (see Section 550.03)
- State: Section 401 Water Quality Certification (see Section 540.02);
 Coastal Zone Management Consistency (see Section 540.03); Hydraulic Project Approval (see Section 540.15); Aquatic Resource Use Authorization (see Section 540.16)
- Federal: Section 404 Permit (see Section 520.02).

Interagency Agreements – None applicable.

Processing Time – Processing time is determined by each local jurisdiction. Generally, the local agency issues a notice of complete application within 28 days of receiving a complete application. The local agency then has 120 days to issue the permit. After receiving a complete Conditional Use Permit or Shoreline Variance from the local jurisdiction, Ecology has 30 days to issue its decision.

Fees – Variable depending on the jurisdiction.

(2) How to Apply

Some local jurisdictions use the Joint Aquatic Resources Permit Application (JARPA) for their Shoreline permit applications. Local jurisdictions may have specific application forms and drawing specifications. Many local jurisdictions require payment of permit fees before processing the application. Contact the local jurisdiction(s) for information on specific requirements. WAC 173-27-180 sets forth the information required for a shoreline permit application. Ecology does not charge a fee for processing Shoreline permits.

JARPA – As of November 2003, 24 counties and 59 cities used the JARPA. Check with the local jurisdiction(s) to find out if JARPA or a separate local permit application is needed. The JARPA can be downloaded from:



Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:

http://www.one-stop-jarpa.org/

Pre-application Conference – Many local jurisdictions require a pre-application consultation. Projects requiring Shoreline Conditional Use Permits and Variances are Ecology's high priority for local governments. They normally recommend technical assistance and review during a pre-application consultation.

Special Information Requirements – Minimum requirements are listed in WAC 173-27-180. Check with the local jurisdiction(s) for any additional requirements.

Public Notice – Public Notice is a requirement of SEPA compliance, fulfilled by the applicant or depending on the project proposal, in some cases the local jurisdiction.

Submitting the Application – Submit the permit application and fees to the local jurisdiction(s).

Agency and Public Review – Upon determining that a Shoreline permit application is complete, the local jurisdiction (or applicant) publishes a public notice allowing a 14-day comment period, usually running concurrently with the local jurisdiction's application review process. The public can submit written comments or request a hearing from local government. After the review and comment period, the local jurisdiction makes a permit decision and files the permit with Ecology.

Substantial Development Permits are filed on the date of receipt by Ecology, and entered in the Shoreline Permit Tracking System. Ecology reviews each permit after it is issued by the local agency and determines if a significant impact will occur that may warrant an Ecology appeal of the local government decision.

For Conditional Use Permits and Shoreline Variances, Ecology has up to 30 days to issue a final decision. Ecology may approve, approve with additional conditions, or deny the permit. Conditional Use Permits and Shoreline Variances are filed on the date Ecology's decision letter is mailed.

Appeal Process – Filing a shoreline permit triggers a 21-day statutory appeal period, during which anyone can file a petition for review with the Shorelines Hearing Board (RCW 90.58.180). The Shorelines Hearing Board has 180 days to reach a decision; its decisions can be appealed to Superior Court.

Post-permitting requirements – For a substantial development permit, substantial progress toward completion of a permitted activity must occur within two years of the effective date of the permit, and terminate five years after the effective date of the permit. Substantial progress includes the preparation of PS&E; signing of notice-to-proceed; completion of grading and excavation; installation of major utilities; or, where no construction is involved, commencement of the activity.

The "effective date" of a shoreline permit shall be the date of the last action required on the shoreline permit and all other government permits and approvals that authorize the development to proceed, including all administrative and legal actions on any such permit or approval.

Local government may adopt different time limits on substantial development permit authorizations. They may authorize a single extension for a period not to exceed one year if the request has been filed before the expiration date and notice is provided to parties of record and Ecology.

Timelines of all substantial development permits and any development under a variance or conditional use permit are addressed in RCW 90.58.140 and 143, and WAC 173-27-090.

(3) For More Information

Please refer to EPM Chapter 452, Coastal Areas and Shorelines, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the State Permit Assistance Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ecy.wa.gov/programs/sea/pac/servcenter.html

(5) Information Last Updated May 31, 2005.

550.03 Floodplain Development Permit

(1) Overview

Under the state's Flood Control Management Law, 86.16 RCW, a local Floodplain Development Permit or other permit identifying the floodplain management conditions is required for any development within the mapped 100-year floodplain. Also an, Elevation Certificate is required for all new structures built in the floodplain, including projects that have Shoreline Substantial Development Permit approval. Permits are required for any development, including filling or grading in the floodplain.

State law requires local governments participating in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA), to adopt a floodplain ordinance that meets or exceeds NFIP requirements. Ecology has approval authority over these ordinances.

FEMA requires local governments to review proposed development projects to determine if they are in identified floodplains as shown on the FEMA maps. If a project is located in a mapped 100-year floodplain (A or V zone), the local government must require that a permit be obtained prior to development.

To reduce the potential for damage from floodwater, proposed projects are reviewed and conditions imposed on any permits that are issued. All flood ordinances include regulations limiting backwater effects from proposed projects within jurisdictional floodplains. Additionally, some jurisdictions also have incorporated compensatory flood storage mitigation or "cut and fill" requirements as part of their floodplain ordinances.

Agency Issuing Permit - Cities and counties.

Statutory Authority – RCW 86.16; WAC 173-158; 42 USC 50, S 4001 et seq.; 44 CFR I, S 60.3; city and county ordinances.

Regulated Activities – Any structure or activity that may adversely affect the flood regime of a stream or surface water flow within the flood zone, or development, including any filling or grading activities within the 100-year floodplain.

Exempt Activities – Varies by jurisdiction. Some jurisdictions exceed the NFIP requirements, but provide limited exemptions down to the minimum. Certain fish habitat enhancement projects that have no adverse flooding impacts can be exempted

Geographic Extent – The minimum area covered by state and local flood plain management regulations is the area subject to a 100-year flood and designated as a special flood hazard area on the most recent FEMA maps. Best available information is used if these maps are not available or sufficient as determined by FEMA.

Types of Permits – All jurisdictions require an elevation certificate for structures proposed within the 100-year floodplain. For other types of development, such as filling and grading, the local jurisdiction may require a clearing/grading permit, floodplain development permit, and/or critical areas ordinance compliance.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required prior to issuing floodplain permits.

Related Permits and Approvals – Other permits that may be required are:

- Local jurisdiction: Shoreline permits (see Section 550.02)
- Ecology: Section 401 Water Quality Certification (Section 540.02),
 Coastal Zone Management Consistency (Section 540.03), and NPDES permits (Section 540.04 through Section 540.08).
- Washington State Department of Fish and Wildlife (WDFW): Hydraulic Project Approval (Section 540.15).
- U.S. Army Corps of Engineers (Corps): Section 404 Permit (Section 520.02), Section 10 Permit (Section 520.03).
- U.S. Coast Guard (USCG): Section 9 Permit (Section 520.04).

Interagency Agreements – None applicable.

Processing Time – Varies by jurisdiction and project complexity.

Fees – Variable. Some local governments charge a fee to determine whether or not the property is within the 100-year floodplain.

(2) How to Apply

A sample floodplain development permit is on Ecology's web site at:



JARPA – Floodplain permits are obtained through the Joint Aquatic Resources Permit Application (JARPA) in some jurisdictions (24 counties and 59 cities as of November 2003). Check with the local jurisdiction to find out if JARPA or a separate local permit application is needed. The JARPA can be downloaded from:

http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:

http://www.one-stop-jarpa.org/

Pre-application Conference – A pre-application conference with various government agencies may be helpful to discuss the project and local requirements.

Special Information Requirements – Varies by jurisdiction.

Public Notice – Varies by jurisdiction. Public Notice is a requirement of SEPA compliance.

Submitting the Application – Submit the permit application to the appropriate local government agency.

Agency and Public Review – Local government staff will review determine whether or not the property is within the 100-year floodplain. A public hearing is not normally required.

Appeal Process – Property owners can challenge floodplain determinations through the local appeal process. If an independent survey by WSDOT finds the property is not within the 100-year floodplain, the finding can be submitted to FEMA with a request for a map amendment or a map revision. For more information, call 1-800-336-2627.

Post-permitting Requirements – Not applicable.

(3) For More Information

Please refer to EPM Chapter 432, Floodplain, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

The web site below has more information on floodplain management with respect to the local government agencies, including floodplain ordinances for some cities and counties:

http://www.mrsc.org/Subjects/PubSafe/emergency/ps-flood.aspx#Management

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the State Permit Assistance Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ecy.wa.gov/programs/sea/pac/servcenter.html

(5) Information Last Updated May 31, 2005.

550.04 Critical Areas Ordinance Compliance

(1) Overview

Under Washington's Growth Management Act, all cities and counties are required to adopt critical areas regulations to protect the natural environment and public health and safety. Critical areas are locally delineated wetlands, fish and wildlife habitat, frequently flooded areas, aquifer recharge areas, and geologically hazardous areas. Local critical areas ordinances (CAOs) are intended to protect the functions and values of these critical areas by avoiding, minimizing or mitigating impacts arising from land development and other activities.

Compliance with CAOs is often regulated in connection with land use and development permits granted by local jurisdictions. Unless the local ordinance conflicts with state law, WSDOT must comply with local regulations. If a WSDOT project would affect a designated critical area, the local jurisdiction may have authority to require WSDOT to obtain a permit or other approval.

The Growth Management Act does not grant local agencies the ability to supersede WSDOT's authority to site, design, and construct the state highway system. Accordingly, the Growth Management Act does not give local agencies the authority to regulate activities outside of critical areas unless the local agency has a particular reason and specific statutory authority for requiring a permit or requiring compliance with a set of standards that are not duplicative of the standard specifications. When critical area ordinance requirements duplicate WSDOT's standard specifications, then WSDOT's own statute (RCW 47.01.260) pre-empts any local attempt to regulate the highway construction. Being exempt from permits, however, does not mean that WSDOT can violate provisions of the critical areas ordinance. The exemption is only an exemption from the process of obtaining a permit, not from the application of the substantive requirements.

Agency Issuing Permit - Cities and counties.

Statutory Authority – RCW 36.70A; city and county ordinances.

Regulated Activities – A permit is generally required to perform any clearing, grading, building or other development in a critical area or its buffer.

Exempt Activities – If WSDOT cannot comply with the critical areas regulations it may be able to receive a variance or other exemption.

Geographic Extent – Local ordinances and accompanying maps identify specific boundaries of critical areas.

Types of Permits – Varies by jurisdiction. Some jurisdictions issue a separate critical areas permit while others conduct the critical areas compliance review as part of another permit, often a grading and/or clearing permit.

Prerequisite Permits and Approvals – Compliance with SEPA is required before the local agency can issue the permit or approval.

Related Permits and Approvals – Local governments have the authority to deny or condition permits under SEPA as well as their own CAO. If requirements and procedures of these regulations conflict, the provisions that provide more protection to environmentally critical areas would apply to a proposed property.

Clearing and grading permits are often required for any alteration to a critical area or its buffer.

WSDOT Project Delivery Memo #04-04 requires that all wetlands and other sensitive areas be delineated by high visibility construction fencing to minimize violations of permit conditions. See Exhibit 690-1 for specifications added to Order of Work Section 1-08.04.

Local jurisdictions may also have regulations restricting development in wellhead protection areas, whose boundaries may differ from critical aquifer recharge areas delineated by the Critical Areas Ordinance.

For projects sited over a Sole Source Aquifer or the surrounding Aquifer Sensitive Area, USEPA requires approval of a Stormwater Site Plan. Approval authority often has been delegated to the local county or city. Designated Sole Source Aquifers are: Spokane Valley Rathdum Prairie (Spokane County), Whidbey Island and Camano Island (Island County), Cross Valley (Snohomish and King counties), Newberg Area (Snohomish), Cedar Valley (City of Renton, King County), Lewiston Basin (Asotin and Garfield counties).

Interagency Agreements – In a June 1988 Sole Source Aquifer Memorandum of Understanding with the USEPA and FHWA, WSDOT agrees to give USEPA an early opportunity to participate in development and review of environmental documents for certain projects within sole source aguifer areas. See Section 433.04 for a summary description and link to the entire agreement.

Processing Time – Varies by jurisdiction.

Fees – Varies by jurisdiction.

(2) How to Apply

Contact the local planning department(s) to obtain critical areas maps information and find out what regulations and application procedures affect a particular critical area such as a wetland or a hazardous slope. Local regulations may be more restrictive than federal or state regulations.

JARPA – Floodplain permits are obtained through the Joint Aquatic Resources Permit Application (JARPA) in some jurisdictions (24 counties and 59 cities as of November 2003). Check with the local jurisdiction to find out if JARPA or a separate local permit application is needed. The JARPA can be downloaded from:



http://www.ecy.wa.gov/

Click on Services, then Permit Assistance Center, then Permit Applications, then Joint Aguatic Resource Permit Application (JARPA).

Or by direct link:



http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Washington's Office of Regulatory Assistance has developed an electronic tool for using the JARPA. The tool can be accessed at:



http://www.one-stop-iarpa.org/

Pre-application Conference – Contact local government early in the planning process to avoid critical areas where possible, or determine the need for a study.

Special Information Requirements – Varies by jurisdiction.

Public Notice – Varies by jurisdiction. Public Notice is a requirement of SEPA compliance.

Submitting the Application – Submit related permit applications to the local jurisdiction.

Agency and Public Review - Varies by jurisdiction. Typically, compliance with the critical areas ordinance is considered as part of agency review of related permit applications.

Appeal Process – Local jurisdictions have different appeal processes for land use permits. Typically, permit approvals are followed by a 14-day local appeals process. Some local jurisdictions also require that appellants have "standing," which may require that they have participated in the permitting process (e.g., submitted comments, etc.).

Post-permitting Requirements – Mitigation for impacts to critical areas may include post-construction monitoring.

(3) For More Information

Please refer to EPM Chapter 450 and Chapter 451, Land Use, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

More information on Critical Areas Ordinances, including some city/county ordinances, is online at:



http://www.mrsc.org/subjects/environment/criticalpg.aspx

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see Appendix G for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the State Permit Assistance Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ecy.wa.gov/programs/sea/pac/servcenter.html

(5) Information Last Updated May 19, 2005.

550.05 Clearing, Grading, and Building Permits

(1) Overview

Local land use authority to require clearing, grading, or building permits for WSDOT projects is limited by state law. The International Building Code adopted in Washington does not apply to construction work done in a public way. Public way includes WSDOT's highway right-of-way, necessary slope easements, and required ancillary facilities like stormwater or mitigation sites.

Building permits are required from local jurisdictions for structures that are meant for full or part time habitation. Examples include buildings at rest areas, maintenance facilities, toll booths, bus shelters, equipment storage, and weigh stations. Retaining walls and noise walls do not require building permits.

Agency Issuing Permit – Cities and counties.

Statutory Authority – RCW 36.70; RCW 36.70A; RCW 19.27; WAC 51-50 (State Building Code); city and county ordinances.

Regulated Activities – A clearing and/or grading permit is required when WSDOT construction requires a change in street grades in an incorporated city or town. WSDOT is obligated by law to present the plans for new grades to the municipality for adoption by ordinance. On limited access facilities, no grading approval is usually required for the highway itself. However, plans must be submitted to any incorporated city or town for grade approval for connecting streets, frontage roads, streets outside the limited access, and streets or connections within interchange areas, including any road passing over or under the facility but having no connection to it. See WSDOT's *Design Manual* (M 22-01), 240.13(2).

Clearing and/or grading permits also may be obtained for work in critical areas, when the local agency does not have a separate critical areas permit but instead attaches its critical areas requirements to the clearing and/or grading permit. Although WSDOT may technically be exempt from the clearing and/or grading permit requirement, it is not exempt from compliance with the substantive requirements of the critical areas code when working in a critical area. Obtaining the clearing and/or grading permit in these instances, limited strictly in application to the critical areas, will help to ensure that the substantive requirements are being met and reduce or eliminate the occurrence of violations.

The Growth Management Act does not grant local agencies the ability to supersede WSDOT's authority to site, design, and construct the state highway system by requiring grading permits. Specifically, the Growth Management Act does not give local agencies authority to regulate highway construction through their programs for regulating building or other construction. Local building codes impose safety standards; these same safety standards are addressed through WSDOT's Standard Specifications.

Although not required for highway or bridge construction, a building permit is typically required for non-residential structures over 200 square feet, and interior or exterior alteration or repair that goes beyond normal maintenance.

Exempt Activities – City or county codes include specific requirements and exemptions. Transportation projects are exempt from grading permits under the International Building Code (IBC). These include activities within the highway right-of-way or easement, and activities required by a regulatory condition or requirement, such as stormwater facilities or mitigation sites.

Geographic Extent - Counties and cities.

Types of Permits - Clearing and/or grading permit, building permit.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required before the local agency will issue the permit.

Related Permits and Approvals – Some WSDOT non-highway uses, such as a maintenance facility, may require a land use permit such as a conditional use permit, unclassified use permit, or variance. Local approval for development and operation of borrow pits may be required.

The Growth Management Act (GMA) amended the State Building Code to require that building permit applicants provide proof of an adequate supply of potable water for the purposes of the building. The three means of proof specified in the law are: (1) a permit from Ecology, (2) a letter from an approved purveyor stating the ability and willingness to provide water, and (3) a local form verifying the existence of an adequate water supply.

Interagency Agreements - None applicable.

Processing Time – Varies by jurisdiction. Building permit processing typically averages from six to eight weeks. SEPA review, which may include clearing and grading, can take from 45 to 90 days.

Fees – Vary by jurisdiction.

(2) How to Apply

Contact the local jurisdiction(s) for information about regulations and permit application procedures.

JARPA – Not applicable.

Pre-application Conference – A pre-application meeting may be required for some standard clearing and grading permits, especially if a shoreline review or SEPA is involved.

Special Information Requirement – Building permit applications typically require detailed final plans, including electrical and plumbing plans, floor layout, sewage facilities, well location (if applicable), drainage plan, size and shape of lot and buildings, setback of buildings from property lines and drainfield (if applicable), access, size and shape of foundation walls, beams, air vents, window accesses, and heating or cooling plants, if included in the design.

Public Notice – Public Notice is a requirement of SEPA compliance.

Submitting the Application – Submit permit applications to the county or city public works or building department.

Agency and Public Review – Public hearing requirements vary by jurisdiction depending on the activity proposed. Building permits are issued upon approval of the plans submitted by WSDOT.

Appeal Process – Varies by jurisdiction.

Post-permitting Requirements – Monitoring of the construction site may be required for critical areas. Building permits may require submittal of as-built plans.

(3) For More Information

Please refer to EPM Chapter 451, Land Use, Land Use Plans and Growth Management, for information on environmental documentation that may be required during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the State Permit Assistance Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ecy.wa.gov/programs/sea/pac/servcenter.html

(5) Information Last Updated

May 27, 2005.

550.06 Land Use Permits

(1) Overview

WSDOT may need to obtain a land use permit, such as a conditional use, unclassified use permit, or variance, from the local jurisdiction.

Agency Issuing Permit - Cities and counties.

Statutory Authority – Growth Management Act; RCW 36.70; city and county ordinances.

Regulated Activities – Varies by jurisdiction.

Exempt Activities – Varies by jurisdiction.

Geographic Extent – City or county.

Types of Permits – Conditional use permit, unclassified use permit, or variance.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) may be required.

Related Permits and Approvals – A clearing permit, grading permit, and/or building permit may also be required (see **Section 550.05**).

Interagency Agreements – None applicable.

Processing Time – Varies by jurisdiction.

Fees – Vary by jurisdiction.

(2) How to Apply

Contact the local jurisdiction to determine what permits may be required and procedures for applying.

JARPA – Not applicable.

Pre-application Conference – Varies by jurisdiction.

Special Information Requirements – Varies by jurisdiction.

Public Notice – Varies by jurisdiction. Public Notice is a requirement of SEPA compliance, if required.

Submitting the Application – Contact the local jurisdiction.

Agency and Public Review - Varies by jurisdiction.

Appeal Process – Varies by jurisdiction.

Post-permitting Requirements – Not applicable.

(3) For More Information

Please see **Chapter 451**, Land Use, Land Use Plans, and Growth Management, for information on environmental documentation that may be required during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the State Permit Assistance Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ecy.wa.gov/programs/sea/pac/servcenter.html

(5) Information Last Updated May 5, 2005.

550.07 Noise Variance - Nighttime Construction and Maintenance

(1) Overview

Local governments have authority for noise control under state law. The only noise permit that WSDOT is likely to need is a variance from a local ordinance for nighttime construction or maintenance activities. The local jurisdiction may grant a variance with conditions based on WSDOT's justification of the need for nighttime work. Night work may be necessary because of issues related to worker, pedestrian or driver safety; traffic management; lack of feasible noise-control technology; or economic or physical factors.

If all alternatives to night work have been exhausted, WSDOT is responsible for obtaining the variance and including any conditions in the contract. If WSDOT does not specify nighttime work in the contract, the contractor is responsible in obtaining variances for working at night.

Agency Issuing Permit - Cities and counties.

Statutory Authority – RCW 70.107; WAC 173-60 (maximum noise levels); city and county ordinances.

Regulated Activities – Noise limits usually are in effect between 10 p.m. and 7 a.m., but vary by jurisdictions or type of land use adjoining the construction noise source.

Exempt Activities – In most jurisdictions, daytime noise from construction and maintenance activities are exempt from permit requirements. Construction and maintenance activities that do not exceed the property line noise level identified by regulations would be exempt. Noise caused during emergency work or to restore property following a public calamity is also exempt.

Geographic Extent - Cities and/or counties.

Types of Permits – Usually a variance or exemption from state or local maximum noise standards.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – SEPA requires state and local agencies to consider potential noise impacts of proposed projects. Local jurisdictions have the authority to place reasonable conditions on proposals to avoid, minimize or mitigate noise impacts.

Interagency Agreements – None applicable.

Processing Time – Varies by jurisdiction; approximately two to six months.

Fees – Vary by jurisdiction.

(2) How to Apply

If nighttime work is necessary, WSDOT contacts the local jurisdiction to find out if there is a noise ordinance and how variances are processed. Local staff may simply ask for a letter informing them of the planned nighttime construction activities. However, they may ask WSDOT to adopt best management practices to reasonably reduce noise levels and restrict certain types of noisy activities during specified night hours.

It is essential that design and construction offices coordinate efforts in determining the necessary variance parameters, i.e., type of work, equipment expected to be used, and total number of nights required. The regional traffic section provides lane closure hours to help justify the night work.

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Plan sheets, equipment lists, justification for working at night, and traffic information for construction work at night are necessary to support a request for a variance. Since the local health authority processes variances in many jurisdictions, the request should address the health, safety and welfare of the traveling public, project employees, and residents. The regional traffic section provides lane closure hours to help justify the night work.

A separate package is required for each city or county jurisdiction. Requirements are found on WSDOT's Air, Acoustics and Energy web site:

http://www.wsdot.wa.gov/environment/

Click on Air, Acoustics and Energy, then Air, Acoustics and Energy web site, then Noise Variance Data Requirements

Or by direct link:



http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/nvdr.htm

Public Notice – Varies by jurisdiction.

Submitting the Application – Two to six months prior to PS&E review, the project design office should submit a written request for the variance to the WSDOT Regional Environmental Office, including the supporting information listed above.

Project offices are discouraged from submitting variance requests directly, in an effort to ensure that best practices are used consistently throughout WSDOT's construction program.

Agency and Public Review – Varies by jurisdiction.

Appeal Process – Varies by jurisdiction.

Post-permitting Requirements – None.

For More Information (3)

Please refer to Chapter 446, Noise, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. See also Part 6, Construction, particularly Section 620.07.

For information on noise variances for nighttime construction see WSDOT's Air, Acoustics and Energy web site:



http://www.wsdot.wa.gov/environment/

Click on Air, Acoustics and Energy, then Air, Acoustics and Energy web site, then Noise Variance Data Requirements.

Or by direct link:



http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/nsdr.htm

Some local noise ordinances are online at:



http://www.mrsc.org/Subjects/Environment/noise/noise.aspx

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see Appendix G for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the State Permit Assistance Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:



http://www.ecy.wa.gov/programs/sea/pac/servcenter.html

(5) Information Last Updated May 26, 2005.

550.08 Reserved

550.09 Reserved

550.10 Other Local Approvals

DETOUR AND HAUL ROAD AGREEMENTS

(1) Overview

Detour and haul road agreements are entered into with a county or city when WSDOT proposes to use city streets or county roads for the purpose of detouring traffic or hauling certain materials associated with a highway improvement project. The haul road/detour agreement, using DOT Form 224-014EF, provides for approval by the Region Administrator or their designee. Altered standard form and nonstandard form agreements require approval by the Attorney General and execution of the agreement through the WSDOT Headquarters Utilities Office.

(2) How to Apply

A preprinted agreement, DOT Form 224-014EF (Example 4-1 of the Utility Manual, M 22-87), titled "Local Agency Haul Road/Detour Agreement," has been developed for this purpose. This form can be downloaded from the following ftp site:



Region preparation and processing of the agreement consists of:

- (a) Assigning an agreement number. The number is prefixed HD, HR, or HRD, depending on the Region, followed by a Region number designation (1, 2, 3, 4, 5, 6). This is followed by numbers continuing in sequence.
- (b) Filling in the blanks in the heading of the agreement. These are: organization and address, agreement number, section/location, state route number, control section number, Region, description of roads or streets, intended use (haul road or detour road), and vehicle restrictions (if none, write "none").
- (c) Following execution of the agreement by all parties and entering of the agreement date on the first page of the form, the Region is responsible for:
 - 1. Retaining the original executed agreement on file.
 - 2. Forwarding a copy (duplicate original if required by the local agency) of the fully executed agreement to the local agency for their files.
 - 3. Providing an executed copy of the agreement to the HQ Project Development Office, if that office reviews the PS&E.

(3) Last Updated

May 13, 2005.

ON-SITE SEWAGE SYSTEMS (UNDER 3,500 gpd)

(1) Overview

Local health authorities issue on-site sewage permits for installation of a septic tank or drain field with design flow at any common point of less than 3,500 gallons per day (gpd). WSDOT may require such systems for weigh stations or rest areas with low traffic volumes. A building permit may also be required (see Section 550.05).

(2) How to Apply

Submit the application to the local health authority. More information is online at:

http://www.doh.wa.gov/LHJMap/LHJMap.htm

(3) Information Last Updated

April 28, 2005.

WATER SYSTEM APPROVAL - GROUP B SYSTEMS

(1) Overview

WSDOT maintenance sheds, where only one or two employees typically work, are considered Group B public water systems and require approval from the local health authority, or DOH, if the county does not handle Group B systems. Group B water systems are not subject to the federal Safe Drinking Water Act, but they must meet state and local requirements for water quality and operations, and be approved in advance of construction. Group B systems are subject to requirements for sampling, record-keeping, reporting, and maintenance and operations. See WAC 246-291 for statutory authority.

(2) How to Apply

Contact the county health authority or DOH for information on specific requirements. Most use a Group B workbook, which must be completed for approval prior to construction, including specific information on the water source and the sanitary control area surrounding the source. The county health authority inspects the well site for approval prior to well-drilling.

A DOH fact sheet is online at:

http://www.doh.wa.gov/ehp/dw/fact_sheets/compliance requirements groupb systems.htm

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For information and assistance from DOH, call Dennis Campbell, 360-236-3158 or email dennis.campbell@doh.wa.gov. Regional offices of DOH Office of Drinking Water (ODW) may also be contacted. Information is available on the ODW web site:

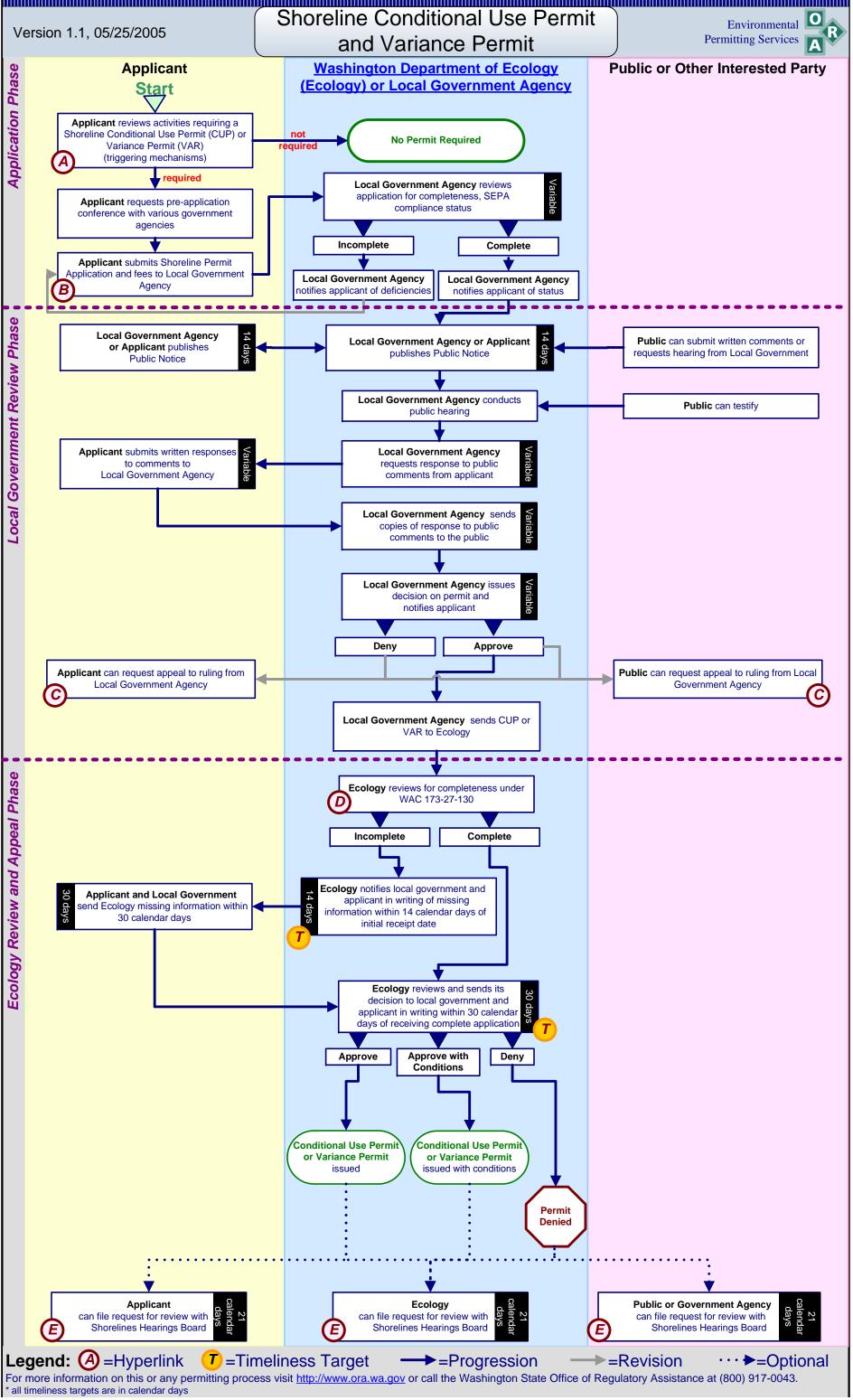
www.doh.wa.gov/ehp/dw

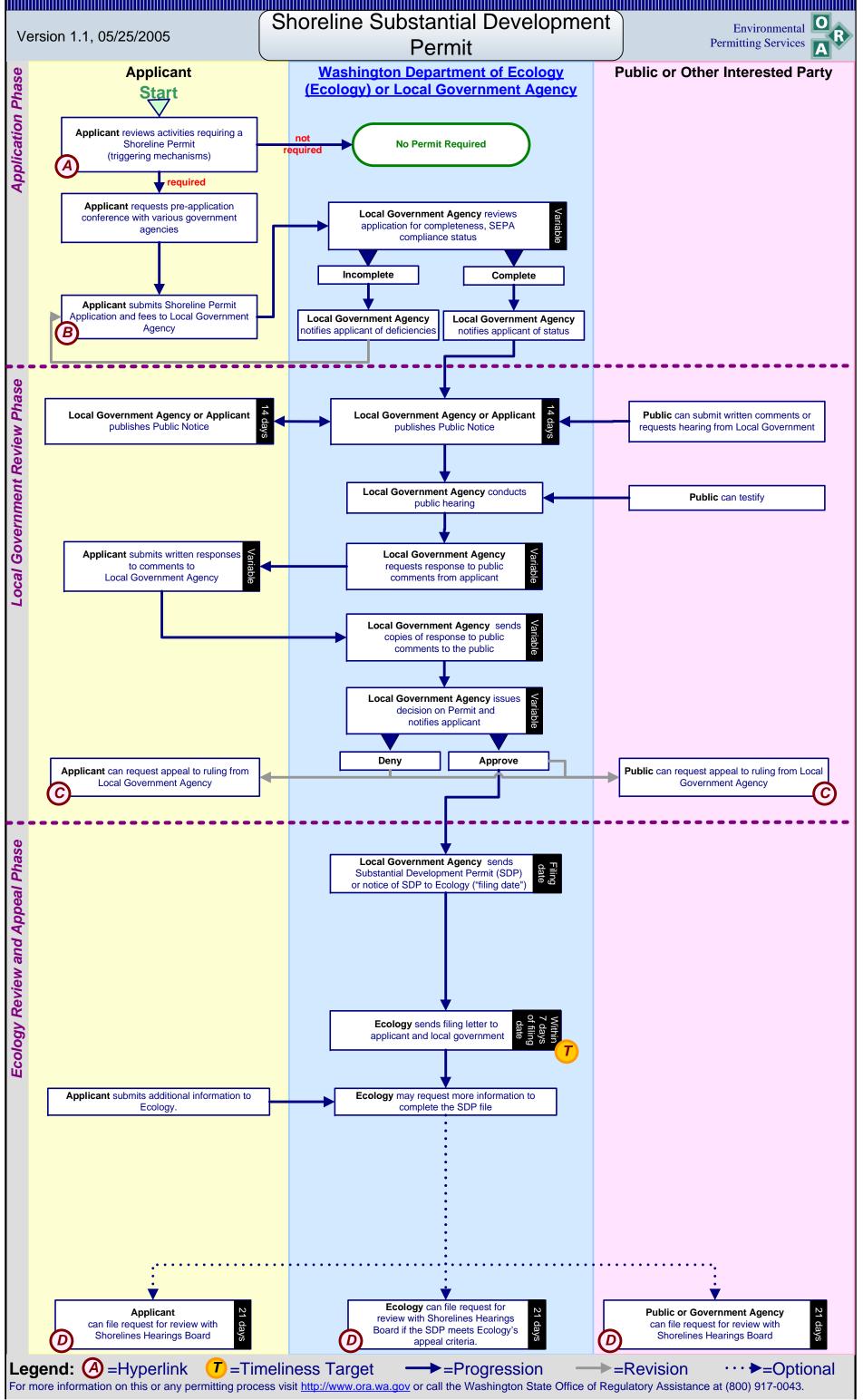
(3) Information Last Updated

May 13, 2005.

550.11 Exhibits

- Exhibit 550-1 Ecology schematic illustrating the application and review process for Shoreline Conditional Use Permits and Variance Permits (see Section 550.02).
- *Exhibit* 550-2 Ecology schematic illustrating the application and review process for Shoreline Substantial Development Permits (see **Section 550.02**).





- 590.01 Introduction
- 590.02 Tracking Environmental Commitments During Permitting and PS&E
- 590.03 Exhibits

590.01 Introduction

This chapter reviews the process for tracking commitments made during the permitting phase and ensuring that all commitments made throughout project development are incorporated into contract documents.

590.02 Tracking Environmental Commitments During Permitting and PS&E

As final permits are received, conditions attached to each permit should be included in the Commitment File and logged in the Commitment Tracking System (see Section 490.02). Determine which commitments are the contractor's responsibility and which are the Project Engineer's responsibility (such as notification and monitoring requirements). All commitments that are the contractor's responsibility must be addressed appropriately in PS&E. Often permit language is not appropriate for contract language. Consequently, commitments must be translated into language that is biddable by the contractor, buildable in practice, and enforceable. That translation should be a joint effort between Environmental, Design, and Construction staffs.

The outcome of this effort should be a clear understanding of the individual commitment, and whether it is covered by a Standard Specification, a General Special Provision, a Standard Plan or a Special Provision within the contract. This type of clarity will help ensure that the contractor knows what his environmental responsibilities are, and how they are covered in the contract. It will also assure the permitting agency WSDOT is fulfilling its commitments. Several regions have experimented with putting this information in a matrix, but a consistent, statewide application is not yet available for use. Incorporating environmental commitments into PS&E is an evolving WSDOT process across the state. Regions are trying different methods, and their experience will be the basis for future guidance.

590.03 Exhibits

None. Each commitment is addressed in contract documents.

600 Construction

600.01	Introduction
600.02	Process Overview
600.03	Organization of Part 6
600.04	Abbreviations and Acronyms
600.05	Glossary
600.06	Exhibits

600.01 Introduction

Part 6 covers the construction phase of <u>a</u> WSDOT project, which begins after approval of project design and environmental documents, formalized as plans, specifications and estimates (PS&E). Construction includes contracting and construction management for highways and other transportation facilities and ends with final inspection and compliance with approved Federal aid program.

Part 6 mostly covers requirements for highway construction using the design-bid-build model of project delivery. Guidance for design-build projects will be provided on a case-by-case basis. Where requirements differ for ferry, rail, or aviation facilities, these are noted.

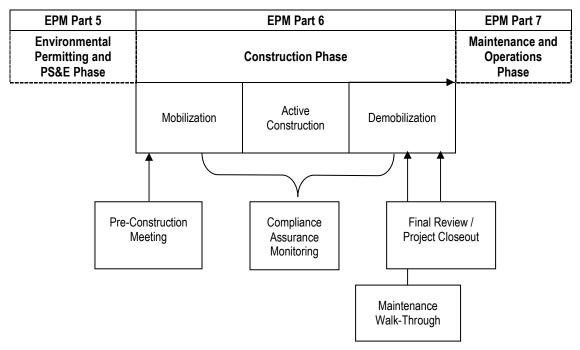
600.02 Process Overview

The design phase of a project is completed with approved PS&Es. Once funding has been secured, the post-design phase begins. The public is notified that WSDOT is ready to accept bids for completion of the work, a contract is awarded, and construction begins. During construction, the contractor is responsible for complying with most environmental commitments made during project development, with oversight by the WSDOT Project Engineer. **Figure 600-1** illustrates the relationship between construction and preceding and succeeding phases of WSDOT's Transportation Decision-making Process.

During project development, environmental issues will have been thoroughly considered and documented. Mitigation plans and permits will have been approved and requirements included in contract documents.

During construction, WSDOT Project Engineer and contractors are responsible for ensuring that commitments made during project development are met. Additional approvals or permits may be needed during construction, if an environmental issue not foreseen during project development is encountered. This could occur, for example, if a previously unknown wetland, stream, or endangered/threatened species habitat is discovered; if a change in project design results in impacts to areas not covered by a permit; or if hazardous material or cultural artifact is discovered during excavation. In such cases, refer to Chapter 520 through Chapter 550 for permit or approval requirements.

Figure 600-1: Construction Phase



600.03 Organization of Part 6

Part 6 has three chapters. Chapter 610 describes environmental requirements applicable to construction, including WSDOT policies, interagency agreements, and permits and approvals. Commitments made in these documents, as well as those made during the environmental review and documentation phase (Part 4), are incorporated into PS&Es and contract documents for implementation during construction. This chapter also discusses WSDOT roles and responsibilities for environmental implementation during construction. Chapter 620 summarizes any specific environmental requirements during construction for each element of the environment covered in Part 4. Chapter 690 discusses how environmental commitments made during project development are implemented during construction. (Chapters 630-680 left vacant for future revisions.)

600.04 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 6** are listed below. Others are found in the general list in **Appendix A**.

BMP	Best Management Practice
DSI	Detailed Site Investigation
EAP	Emergency Action Plan, appendix to SPCC Plan
ECAP	Environmental Compliance Assurance Procedure
ISA	Initial Site Assessment
NOI	Notice of Intent
PS&E	Plans, Specifications, and Estimates
SHPO	State Historic Preservation Officer
SPCC	Spill Prevention, Control, and Countermeasures
SSP	Stormwater Site Plan

TESC Temporary Erosion and Sedimentation Control

UST Underground Storage Tank

WISHA Washington Industrial Safety and Health Act

600.05 Glossary

No special terms related to construction. See **Appendix B** for a general glossary of terms used in the EPM.

600.06 Exhibits

None.

610 Environmental Requirements in Construction

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610.02	Policy Guidance
610.03	Interagency Agreements
610.04	Permits and Approvals
610.05	WSDOT Roles and Responsibilities
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610.01 Introduction

This chapter summarizes the environmental requirements affecting WSDOT <u>during a project's construction phase</u>. Commitments contained in policy guidance, interagency agreements, NEPA/SEPA documents and permits and approvals are included in contract documents for implementation during construction. The Standard Specifications are the basis of the contract between WSDOT and the contractor. Special provisions are written into each contract to either amend or replace part of the Standard Specifications based on the judgment of the Design Engineer.

Chapter 690 reviews how environmental commitments apply during the construction process. These include:

- Contractor and WSDOT responsibilities for commitments
- Monitoring for environmental compliance
- Ensuring appropriate pass-off to the Maintenance Office for long-term maintenance of some commitments

These requirements will be summarized in the Commitment Tracking System as it is developed.

Environmental commitments are generated from many different documentation and permitting efforts. Details on those efforts can be found in **Part 4** and **Part 5**.

(1) Correlation with WSDOT Construction Manual

WSDOT's *Construction Manual* (M 41-01) covers all aspects of construction management, including environmental compliance, and has been referenced throughout in this section. However, it should be noted that this EPM represents WSDOT's most current information on federal, state, and local environmental requirements. The *Construction Manual* should be consulted for overall WSDOT construction procedures and requirements. For a specific project, the contract specifications take precedence.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(2) FHWA Requirements

Federal funds for construction of highways, roads, streets and bridges and other transportation facilities are subject to federal laws, Executive Orders, regulations, and agreements.

The federal government provides transportation funding to Washington State through the Federal Highway Administration (FHWA). These funds are subject to applicable federal law, Executive Orders, regulations, and agreements.

FHWA approves all programs for federal highway funds and, where Interstate funds are involved, approves individual project plans and specifications. FHWA may conduct final inspection to verify substantial compliance with the approved Federal aid program.

FHWA provides oversight of WSDOT work on some projects, and has delegated that responsibility to WSDOT or others. In accordance with the Construction Monitoring Plan, which is part of the WSDOT/FHWA stewardship agreement, the project type and size determine whether FHWA, the Construction Office, or Region will conduct the inspections and reviews necessary to verify adequate compliance with federal rules, regulations and procedures.

See Section 690.02 for FHWA's role in final inspection and approval of highway projects.

610.02 Policy Guidance

The most important policy guidance is the Environmental Policy Statement signed by Secretary Douglas MacDonald on September 26, 2001. That policy makes it clear WSDOT will comply with all applicable environmental laws, regulations and other commitments and that it is the responsibility of each individual employee to make sure that happens. The policy statement is online at:



610.03 Interagency Agreements

This section lists the interagency agreements that have provisions applicable to construction. Chapter 620 references agreements applicable to each element of the environment. Further information on agreements is found in Chapter 420 through Chapter 470.

Appendix E includes a list of all of WSDOT's environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. **Appendix E** also includes a matrix and an accompanying narrative showing which agreements have provisions applicable to construction.

These interagency agreements are accessible on line via the following Environmental Services Office link:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

(1) Compliance Implementing Agreement

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals. That agreement stipulates the following:

- All project commitments <u>are clearly communicated to contractor</u>, construction project office staff, and supporting design offices.
- All sensitive areas are fenced as a first order of work.
- Inspectors be assigned to monitor for environmental compliance.
- WSDOT PE notifies Ecology prior to beginning work.
- PEs must consult with environmental inspector to ensure work in sensitive areas is compliant.
- WSDOT must develop a commitment tracking system.
- Ensure all WSDOT commitments have been completed prior to completion of the project and commitments with long-term maintenance needs have been communicated to Maintenance and Operations.

(2) Implementing Agreement on Water Quality Standards

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards, currently being revised, is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions for concrete work, erosion control, hazardous spill prevention and control, spill reporting, and specific provisions for erosion control in new roadway and bridge construction projects. (See Section 431.04.)

Provisions in the 1998 agreement applicable to construction are:

- Notify Ecology prior to starting work on a project that is large, contentious
 or when a significant amount of work in the water will take place (so
 Ecology can respond to any citizen complaints).
- Review conditions with selected contractor. Copy of agreement on the job site at all times.

(3) MOA Concerning Work in State Waters

This June 2002 agreement between WSDOT and WDFW replaces previous agreements including Compliance with the Hydraulic Code (8/90), Fish Passage Guidelines – Culvert Installations (8/90, and Work in State Waters (12/96). See Section 436.04.

The MOA describes how WSDOT and WDFW will cooperate to ensure that state transportation projects protect fish life and habitats, and ensure consistent and uniform application of RCW 77.55 (construction in state waters) and WAC 220-110 (hydraulic code rules).

Provisions applicable to construction are:

 WSDOT will train project inspectors on how to monitor projects for HPA compliance. If project design changes or circumstances arise requiring change in design or construction, WSDOT contacts WDFW to discuss potential modifications to HPA.

(4) Implementing Agreement – Wetlands Protection and Management

This July 1993 agreement between WSDOT and Ecology clarifies and promotes interagency coordination in wetland protection and management. The two agencies determine policies of mitigation, preservation, mitigation banking and training programs. See Section 437.04.

Provisions applicable to construction:

 Pre-construction conference – as needed to discuss construction techniques for wetland creation, restoration or enhancement. Primarily for benefit of contractor.

(5) Implementing Agreement – Hazardous Waste Management

In this May 2000 agreement, Ecology and WSDOT agree to cooperate in issues related to hazardous waste management and reduction, site remediation, and regulatory compliance. WSDOT commits itself to full compliance with hazardous waste management and cleanup laws and regulations. See Section 447.04.

Provisions applicable to construction:

- If an unanticipated leaking underground storage tank (LUST) is encountered during construction, WSDOT will follow Ecology guidance in Remediation of Releases from Underground Storage Tanks.
- If there is an imminent threat to public health or environment due to site contamination, WSDOT will use resources such as an on-call hazardous waste contractor to stabilize the situation.
- WSDOT will seek to minimize the use and generation of hazardous materials in its construction activities and those of its contractors.

(6) MOU on Highways over National Forest Lands

This March 2002 MOU establishes procedures for coordinating transportation activities on National Forest lands. See Section 455.04.

Provisions applicable to construction:

- WSDOT will inform USFS of project advertisement and award.
- Significant changes in ROW during construction will require an amendment to the recorded easement deed.
- WSDOT will notify and obtain approval from USFS for any changes that will affect national forest lands.
- WSDOT will notify USFS when project nears completion; USFS will
 indicate if they want to participate in the final review.

610.04 Permits and Approvals

Resource and regulatory agencies responsible for water quality, wildlife and fisheries, flood control, land development, forestry, and other environmental issues may need to be consulted during the construction process.

Each permit or approval issued by these agencies is an agreement between WSDOT and the agency on how WSDOT will conduct its work. The contract is an agreement between WSDOT and the contractor on getting the work done. The Project Engineer needs to monitor contractors to ensure that the conditions of all permits are followed and that all commitments are implemented. Without "due diligence," WSDOT may be legally liable for damages if conditions of permits and interagency agreements are not met. Not fulfilling environmental commitments can have a very negative impact on a project's scope, schedule and budget. The *Construction Manual* addresses the relationship between the Project Engineer, inspectors, contractors, and resource agency staff. In general the Project Engineer should ensure that WSDOT and its contractors fulfill any commitments made on the part of the project.

When the contractor is required specifically by the contract to obtain approval from other agencies, the Project Engineer shall confirm that approval was received by obtaining a copy of the approval. The Project Engineer or inspector should accompany any representative of the regulatory agency who visits the project site.

When a contract includes work on Tribal lands, the contract should include a special provision alerting the contractor of special requirements.

See Chapter 620 for specific permits likely to have construction-related conditions for each element of the environment. Detailed guidance on all permits is found in Chapter 520 through Chapter 550; permits and approvals are listed in Appendix F. (See WSDOT's Construction Manual, M 41-01, Chapter 1, Sections 1.7 and 2.2.)

610.05 WSDOT Roles and Responsibilities

(1) Headquarters

(a) Highway Construction Management

The Headquarters Construction Office strives for consistent, cost-effective high quality construction through direct support of WSDOT's regional construction program. The Construction Office coordinates the development of policies and standards, provides training, guidance, oversight, technical expertise and advocacy; introduces innovation; and coordinates and shares information on construction issues. (See WSDOT's *Construction Manual*, M 41-01, Section 1-1.4.)

The State Construction Engineer is responsible for all WSDOT contract construction projects, except those executed by the Director of Washington State Ferries. The State Construction Engineer is responsible for providing guidance and direction to Regional and Headquarters construction personnel. He or she establishes WSDOT policy relative to inspection and documentation and ensures uniform interpretation and enforcement of the Standard Specifications and contract provisions throughout the state. The State Construction Engineer is assisted by principal assistants in Administration, Roadways, and Bridges.

Construction Administration – The Construction Engineer, Administration, sets requirements for contracting, policy, and responding to questions from the Regions on all issues pertaining to Division 1 of the Standard Specifications and Chapters 1 and 10 of the *Construction Manual*.

Roadways – The Construction Engineer, Roadways, is responsible for all highway construction such as grading, drainage, surfacing, paving, signing, guard rails, illumination, traffic signals, landscaping, and rest areas.

Bridges – The Construction Engineer, Bridges, is responsible for bridges and related structural construction, engineering and contract administration.

(b) Environmental Services Office

Environmental Services Office (ESO) staff <u>offers</u> expertise in environmental issues as a resource to Headquarters and Regional personnel during project construction. While project-specific questions should always be addressed first to regional environmental staff, ESO can provide regulatory, technical, <u>advocacy</u>, training, and logistical support.

(2) Regional Offices

Regional Construction Offices are responsible for delivering the construction phase of the WSDOT's projects. This includes ensuring that projects fulfill commitments made during Design and PS&E as well as complying with WSDOT's Standard Specifications, General Special Provisions and generally applicable laws.

Regional environmental offices provide technical assistance, regulatory interpretation and any post-Advertisement environmental permitting and compliance work the project may need. Each Region has a 24-hour environmental contact to provide that support. Each Region has its own program to support Construction Offices, outlined in its Construction Compliance Plan. Those plans can be found at:

http://www.wsdot.wa.gov/environment/compliance/default.htm#CompPlans

(3) Ferries, Rail, and Aviation

(a) Washington State Ferries

Ferry facility construction and maintenance are the responsibility of the Director of WSF.

(b) Rail

Construction and maintenance of rail facilities and disposal of surplus property are the responsibility of Burlington Northern and other railway companies, as owners of the facilities.

(c) Aviation

Aviation facility construction and maintenance are the responsibility of the Director of WSDOT's Aviation Division.

610.06 Exhibits

None.

620 Environmental Procedures During Construction

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620.02	Earth
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620.04	Water Quality
620.05	Wildlife, Fisheries, and Vegetation
620.06	Wetlands
620.07	Noise
620.08	Hazardous Materials
620.09	Other Elements of the Environment
620.10	Transportation/Traffic
620.11	Public Services and Utilities
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620.01 Introduction

Chapter 620 summarizes any specific environmental requirements applying to different elements of the environment during construction (i.e. Earth, Air Quality, Water Quality, etc). It is organized to parallel the presentation of requirements for each element of the environment during the design and environmental review phase in Chapter 420 through Chapter 480, and includes requirements included in permit conditions during PS&E as discussed in Chapter 520 through Chapter 550.

These requirements are spelled out in more detail in WSDOT's Standard Specifications for Road, Bridge and Municipal Construction and Construction Manual (M 41-01) as cited throughout this chapter.

620.02 Earth

(1) Clearing and Grubbing

Prior to beginning work the site boundaries and all sensitive areas must be mark with fencing as described in Project Delivery Memo #04-04, "High Visibility Fencing" (see Exhibit 690-1).

From the standpoint of roadside appearance and control of erosion on the right of way, it is advantageous to preserve natural growth where possible. If it is not clearly shown in the contract plans, the Project Engineer should discuss with the landscape architect the preservation of natural growth that will not interfere with roadway and drainage construction before staring clearing operations. Areas to be omitted from clearing or extra areas to be cleared should be determined before

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starting work and an accurate record made during staking operations. For details, see the *Construction Manual*, Section 2-1. See also Section 540.23 for land clearing burns and Section 550.05 for local clearing and grading ordinances.

(2) Excavation

(a) Mining Notification

The U.S. Department of Labor, Mine Safety and Health Administration must be notified at the beginning and end of all mining operations. This includes surface mining, such as normal pit site operations; all crusher operations; and all pits and quarries, including borrow pits. The Project Engineer is responsible for this notification for WSDOT furnished pits; the contractor is responsible for all pits and quarries not furnished by WSDOT.

The Bureau of Mines reports are in addition to reports required by the Washington State Department of Natural Resources. See the *Construction Manual*, Section 1-2.2D.

See Section 540.19 for information on WDNR's Surface Mining Reclamation permit.

(b) Roadway Excavation

Roadway excavation is specified in accordance with Section 2-03.1 of the Standard Specifications and includes all materials within the roadway prism, side borrow area, and side ditches. Borrow, unsuitable excavation, ditches and channels outside the roadway section, and structure excavation are separately designated. See the *Construction Manual* Section 2-3 for detailed procedures including reestablishment of slopes in the event of landslide or erosion.

(c) Structure Excavation

There are two classes of structure excavation. Class A is excavation necessary for construction of bridge footings, pile caps, seals, wing walls, and retaining walls. All other structure excavation is Class B. See Standard Specifications 2-09.3(2), 2-09.3(3), and 2-09.3(4).

All excavation four feet or more in depth shall be shored, or protected by cofferdams, or shall meet the open-pit requirements of Section 2-09.3(3)B of the Standard Specifications. Open pit excavation or "glory holes" are not allowed adjacent to running streams.

See the *Construction Manual*, Section 2-9 for details on coffer dams, pile driving, backfilling, and other excavation operations.

(d) Ditch and Channel Excavation

Areas where open ditches are to be constructed shall be cleared and grubbed the same as areas for roadway construction. See *Construction Manual*, Section 2-10.

(3) Borrow Pits

Sections 2-03.3(14K), 9-03.20, and 9-03.21 of the Standard Specifications provide for the use of select and common borrow for use in construction of

embankments. The requirements of Section 2-03.3(13) of the Standard Specifications must be observed in the operation and cleanup of borrow pits. With the requirement for reclamation of all pits, a plan must be developed to meet the requirement of the specifications and special provisions and approved before the start of pit operations. See the *Construction Manual*, Section 3.3 for guidelines on site reclamation.

See Section 540.19 for WDNR Surface Mining Reclamation permit; Section 520.13, Authorization for Use of Public Lands (borrow pits on federal land); and Section 540.17, Easement for Use of Public Land (special use permit for state-owned land).

620.03 Air Quality

Construction activities may result in temporary impacts on air quality from land clearing burns, asbestos demolition, and operation of portable asphalt batching plants, rock crushers, and Portland concrete cement plants. See Chapter 425 for background on air quality requirements that may apply to the project, and Section 540.23 for air quality permit information.

620.04 Water Quality

During construction, erosion control and prevention of erosion and spills of hazardous materials are most important to avoid impacts on water quality. Cooperation with other agencies is important to ensure compliance with environmental commitments made during project development. See **Chapter 431** for background on water quality requirements that may apply to the project.

(1) Applicable Statutes and Regulations

Please see **Section 431.02** for details.

(2) Policy Guidance

WSDOT policy is to "minimize the impact that construction, operation, and maintenance of transportation facilities have on the state's surface and ground water" (Washington Transportation Commission Policy Catalog).

(3) Interagency Agreements

See Section 610.03 for information on interagency agreements applicable to water quality protection during construction: the Compliance Implementing Agreement (2004) and Implementing Agreement on Water Quality Standards (1998).

(4) Technical Guidance

Please see Section 431.05 for background information.

(a) Stormwater and Erosion Control

The primary concern with stormwater runoff during construction is erosion prevention and sediment control. Deposition of sediment in water bodies degrades water quality and severely impacts aquatic habitat.

WSDOT's *Highway Runoff Manual* (M 31-16) provides guidance to fulfill the requirements for temporary erosion and sediment control, as well as

permanent control measures to manage stormwater after construction is complete. Consult the *Highway Runoff Manual* for detailed information on Stormwater Planning and Temporary Erosion and Sediment Control Plan requirements. For technical assistance with the development of these plans, contact regional environmental staff, Hydraulics, or Water Quality Units.

General contract requirements for applying and enforcing the standards in the *Highway Runoff Manual* on construction contracts are in *Standard Specifications*, Section 1-07.15, and 8-01 and in Section 2-3.4 of WSDOT's *Construction Manual*.

Seasonal restrictions for erosion and sediment control practices apply to construction projects. The restrictions are identified in *the Highway Runoff Manual*. Contact the Regional Environmental Manager, Regional Water quality unit, Hydraulics, or the ESO Water Quality Program for further information on erosion and sedimentation control guidance.

Information for designing and maintaining roadside vegetation to minimize long term erosion after construction is included in the Erosion Control chapter of WSDOT's *Roadside Manual* (M 25-30).

(b) Herbicides

For information on application of aquatic herbicides for noxious or non-noxious weeds, see Section 431.05 of the EPM. When any herbicide application is made in or on the waters of the state, it is considered an aquatic herbicide application and falls under jurisdiction of the Department of Ecology. Prior to the application WSDOT or its contractor must meet conditions established in NPDES Programmatic Permit for aquatic noxious plant control and nuisance aquatic plant and algae control. (See Section 540.08.)

(5) Permits and Approvals

Below is summary information on several permits related to water quality. See **Appendix F** for a complete list of permits that may apply to the project.

(a) Stormwater Management and Erosion Control

The NPDES General Permit to Discharge Stormwater Associated with Construction Activity is administered by the Department of Ecology to regulate stormwater discharge on construction sites for each project that disturbs one acre or more. Low risk projects between one and five acres can apply for an Erosivity Waiver through Ecology. During project development, an NPDES Construction Stormwater Permit covering activity in the WSDOT right-of-way will have been obtained. The permit should be kept in close proximity to the project site, along with the permit coverage letter, the Stormwater Pollution Prevention Plan (SWPPP), and the Site Log Book. For any stormwater discharge resulting from construction activity outside the WSDOT right-of-way, including off-site equipment staging areas, material storage areas, and borrow areas that have not been included in WSDOT's NPDES permit for the project, the contractor will be responsible for obtaining the necessary permits.

See WSDOT's *Highway Runoff Manual* (M 31-16), described in **Section 431.05**, for guidance on stormwater planning and how to develop TESC Plans.

For information about the NPDES permit see Section 540.04.

(b) Section 404 Permit

Under the Clean Water Act, a Section 404 permit from the Corps of Engineers is required for discharging, dredging, or placing fill materials within waters of the United States, including wetlands. The permit is required to construct temporary sedimentation basins. If applicable, the permit will have been obtained during project development and should be included in the contract special provisions. See Section 520.02 for details.

If the contractor's method of operations, weather conditions, design changes, or other factors affect waters of the United States in ways not anticipated or represented in the permit, the Project Engineer will work with the Region environmental staff, the assigned representative of the Corps, and the contractor to modify the existing permit or obtain a new or revised one as appropriate.

(6) Non-Road Requirements

Please see Section 431.07 for background.

620.05 Wildlife, Fisheries, and Vegetation

Transportation activities affecting fish species listed as threatened or endangered under the Endangered Species Act (ESA) include:

- Release of construction-related chemicals, products and by-products.
- Clearing, grubbing and filling.
- Runoff from impervious surfaces.
- Activities in areas having listed fish or potential for listed fish habitat.
- Stormwater discharge into a river or stream with a low-flow designation.

See **Chapter 436** for background on requirements related to wildlife, fisheries, and vegetation that may apply to the project.

(1) Applicable Statutes and Regulations

Please see Section 436.02 for details.

(2) Policy Guidance

WSDOT policy is to minimize impacts to natural habitats in design, construction, and maintenance activities (Washington Transportation Commission Policy 6.3.3). Please see Section 436.03 for details.

(3) Interagency Agreements

See Section 610.03 for information on the Memorandum of Agreement with WDFW on Construction Projects in State Waters, which is applicable to wildlife protection during construction. See also Section 436.04.

(4) Technical Guidance

Please see Section 436.05 for details. See WSDOT Instructional Letter 4020.02 (February 25, 2002) regarding stormwater effects on fish species listed under the ESA. The Instructional Letter is an addendum to the *Highway Runoff Manual*. (See Section 436.05(3)(d).)

Timing restrictions may apply to projects in the vicinity of spawning, nesting, migrating, or wintering habitat of many species, whether or not they are listed as threatened or endangered. For species not protected under the ESA, priority habitats and species recommendations by WDFW may be applied to protect their habitat. In-water work and noise generating activities such as pile driving and blasting are of the greatest concern. Procedures listed in WSDOT's *Roadside Manual* (M 25-30) include:

- Clearly flag or place construction fencing around all habitat areas and features that are to be protected.
- Erosion control should be implemented and maintained during construction to minimize impacts to aquatic species.
- Emphasize sensitive areas during pre-construction meetings. Note the kinds of activities not allowed in sensitive areas (clearing, grading, stockpiling materials, staging vehicles and equipment).

(5) Permits and Approvals

Construction in or near streams, rivers, or other water bodies, may require a Hydraulic Project Approval (HPA) from the Washington State Department of Fish and Wildlife (WDFW), which would have been obtained during project development. Please see Section 540.15 for details.

For projects requiring a Hydraulic Project Approval (HPA), written approval must be obtained from WDFW before commencement of construction or other work.

As agreed between WSDOT and WDFW, for each project requiring an HPA, WDFW will issue the permit to WSDOT and not to its contractor. The HPA may cover other impacts from the project, including operations in contractor staging areas, material source sites, and waste disposal sites.

When an HPA has been obtained for the project, and the permit has not been incorporated into the contract documents, the Project Engineer shall provide copies of the permit to the contractor and ensure it is properly posted at the work site at all times work is in progress. The Project Engineer should ensure that both the intent and the specific provisions of the permit are rigidly enforced.

If the contractor's method of operations, weather conditions, design changes, or other factors affect waters of the State in ways not anticipated or represented in the HPA, the Project Engineer will work with the assigned representative of WDFW and the contractor to modify the existing permit or obtain a new or revised one as appropriate.

See also WSDOT's Construction Manual, Section 1-2.2.

(6) Non-Road Requirements

Please see **Section 436.07** for details.

620.06 Wetlands

See **Chapter 437** for background on wetland mitigation requirements that may apply to the project.

(1) Applicable Statutes and Regulations

Please refer to **Section 437.02** for background.

(2) Policy Guidance

WSDOT policy is to avoid, where practical, any activities that would adversely affect wetlands in designing, constructing, and maintaining the state transportation system (State Transportation Commission Policy 6.3.4). Appendix 1 of WSDOT's *Protection of Wetlands Plan*, Directive D-31-12, specifies that Construction Action Plans should include mitigation implementation, disposal sites, drainage facility construction, and pile driving. See Section 437.02(3).

(3) Interagency Agreements

See Section 610.03 for information on the Mitigating Agreement on Wetlands Protection and Management, which is applicable to wetlands protection during construction. See also Section 437.04.

(4) Technical Guidance

Coordination between WSDOT and Ecology is strongly encouraged to ensure compliance with wetland commitments. A pre-construction conference should be scheduled with Ecology for projects impacting wetlands (see Section 690.02 (3).)

(a) Wetland Mitigation

The final wetland mitigation plan prepared during project design will include a general grading plan and revegetation plan, planting plan, construction sequence and schedule, steps to minimize damage to buffers and wetlands and buffers, and methods for controlling invasive species. Contractor responsibilities should be included in contract plans and special provisions.

Within a month of completing construction and planting a wetland mitigation project, as-built plans should be sent to the lead agency, including an as-built topographical survey, plant species and quantities used, photographs of the site, and notes about any changes to the original approved plan. It should also list the contractor's responsibility concerning plant replacement, fertilization and irrigation, protection from wildlife, and contingency plan requirements. See Section 437.05(5).

(b) Herbicides

When any herbicide application is made in or on the waters of the state, it is considered an aquatic herbicide application and falls under jurisdiction of the Department of Ecology. Prior to the application WSDOT or its contractor must meet conditions established in NPDES Programmatic Permit for aquatic noxious plant control and nuisance aquatic plant and algae control (see Section 540.08).

(5) Permits and Approvals

Please see **Appendix F** and **Chapter 520** through **Chapter 550** for permits that may apply to the project.

(6) Non-Road Requirements

No special requirements were identified.

620.07 Noise

Construction noise is temporary but may adversely affect nearby residents. During project development, the design engineer should have considered ways to reduce or mitigate the adverse impacts of construction and incorporated any requirements into contract plans and special provisions. All reasonable methods should have been incorporated in the contract special provisions. See **Chapter 446** for background on noise requirements that may apply to the project.

In most cases, daytime noise from construction activities is exempt from local laws. For some projects, permits from local jurisdictions may be needed. For each project, the local jurisdiction will need to be contacted to determine the local regulation and if a permit is required. Some acoustical analysis may be needed before the local agency will grant the permit. This is done on a case-by-case basis.

These same regulations apply to maintenance activities in all but emergency situations. In the latter case, the police department and the local permitting agency should be contacted and apprised of the situation at the earliest possible opportunity.

For guidance on obtaining a local variance, see Section 550.07.

620.08 Hazardous Materials

(1) Introduction

This section contains policies and procedures for identifying, handling, and disposing of hazardous materials encountered during construction at WSDOT sites. It is intended as a guide for WSDOT staff and contractors that outlines step-by-step procedures for identifying, managing, and disposing of hazardous materials; notification requirements; documentation requirements; sampling and characterization requirements; as well as health and safety obligations for contractors and training requirements. This section refers to **Chapter 447**, the WSDOT Construction Manual (M 41-01), the WSDOT Standard Specifications (M 41-10), project SPCC Plans, and project SWPPPs. It also provides links to many useful agency web sites.

A key aspect of managing hazardous materials at WSDOT sites is the maintenance of clear communication between contractors and WSDOT staff. WSDOT's Environmental Services Office (ESO) is equipped to coordinate these activities and help resolve hazardous materials issues in a timely manner.

(2) Applicable Statutes and Regulations

Please see **Section 447.02** for details.

(3) Policy Guidance

WSDOT policy is to "reduce the potential adverse effects transportation, storage, application, and disposal of hazardous substances can have on surface and ground water, fish and wildlife populations and habitat, and air quality" (Washington Transportation Commission Policy 6.3.8). Please see Section 447.03 for details.

(4) Interagency Agreements

The Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards (February 13, 1998) is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions, concrete work, erosion control, hazardous spill prevention and control, spill reporting, and specific provisions for erosion control in new roadway and bridge construction projects. Please see below for hazardous spill prevention and reporting, Section 620.04 for stormwater management and erosion control, and Section 447.05 for background information and other references. Please see Section 610.03 and Appendix E for other agreements that may be relevant to the construction phase of the project.

(5) Spill Prevention Plans

For all WSDOT construction contracts and developer projects on WSDOT rights-of-way, a Spill Prevention, Control, and Countermeasures (SPCC) Plan must be completed and implemented in accordance with WSDOT Standard Specification #1-07.15(1).

WSDOT's Hazardous Materials Program has developed a number of documents and guidance materials to assist contractors in developing a Spill Prevention, Control, and Countermeasures (SPCC) Plan that will meet WSDOT contract requirements. These include an example site map illustrating the level of detail and the type of information expected in a SPCC Plan submitted to WSDOT, and an example of a completed SPCC plan. Guidance is also available for WSDOT staff who review SPCC plans. These documents are at WSDOT's web site:

http://www.wsdot.wa.gov/environment

Click on Hazardous Materials, then SPCC Plan Guidance & Training.

Or by direct link:

http://www.wsdot.wa.gov/environment/hazmat/default.htm#SPCC

Click on documents and guidance materials; then Example SPCC Plan, SPCC Plan Template, Tools and Templates, or Example Site Plan.

(6) Hazardous Materials Identification

The process of hazardous materials discovery, investigation, and reporting at WSDOT sites begins during the initial planning and design phases of a project. The process includes environmental documentation such as an EIS or an EA and hazardous materials investigations including an ISA, PSI, and DSI (see Section 447.01). This process allows WSDOT staff and contractors to anticipate the types of hazardous materials that are most likely to be encountered during construction. Table 447-4 in Section 447.05 includes a list many of the land uses that are likely to generate hazardous materials.

Exhibit 620-1 indicates hazardous materials that could be encountered at WSDOT sites during construction. The identification of hazardous materials depends on observations by trained WSDOT staff and contractors and is critical in limiting WSDOT liability by preventing the offsite migration of contaminated media.

(a) Hazardous Materials Used at WSDOT Construction Sites Procedures for using, storing, and cleaning up hazardous materials used at WSDOT sites are typically outlined in SPCC Plans that contractors are required to develop for each project. See Section 620.08(5).

(b) Hazardous Materials Encountered at WSDOT Construction Sites During construction, a variety of hazardous materials may be encountered, including suspected or confirmed contamination identified during the initial site investigation process (e.g., during an ISA, PSI, or DSI) and unknown or unanticipated contamination. The affected media may include soil, water, air, sediment, and sludge, as well as materials associated with structures such as USTs, asbestos, transformers, and lead-based paint from facilities and bridges. WSDOT requirements for specific hazardous materials are described in Section 447.05(7).

- Terminology See Section 447.01 for definitions of various terms
 used to describe different types of wastes and problem materials that
 require special handling when encountered during construction.
 These include dangerous waste, hazardous material, hazardous
 substance, hazardous waste, problem waste, and solid waste.
- Field Screening Methods Initial identification of hazardous materials is often based on visual or olfactory observations by the contractor or WSDOT staff. However, in order to protect worker health and safety and to ensure accurate results, subsequent field screening should be performed using direct-reading equipment such as a photoionization detector or soil gas probe, as outlined in Section 447.05(5). After proper notification (as described in Section 620.08(7)), ESO staff should be contacted to conduct or oversee the field screening activities.

(c) Continuity of Work

Several WSDOT standard specifications are applicable to ensuring continuity of work when hazardous materials are encountered. A summary of these specifications is provided in **Exhibit 620-2**. In addition to these Standard Specifications, project-specific specifications may be written into the contract to protect WSDOT from contractor overruns. Examples of project-specific specials can be found at WSDOT's web site via the following link:

http://www.wsdot.wa.gov/environment/hazmat/default.htm

(7) Notification Procedures

The notification procedures outlined in **Figure 620-1** were designed to help expedite the process of identifying, managing, and disposing of hazardous materials between the Contractor, WSDOT staff, and regulatory agencies.

(a) Notification Trigger

Discovery of unanticipated hazardous materials at a WSDOT site is considered a notification trigger that requires WSDOT staff and contractors to implement the notification procedures outlined in Section 1-2.2K(1) of the WSDOT Construction Manual (M 41-01). A notification trigger is any action, activity, or situation that requires compliance with WSDOT's Environmental Compliance Assurance Procedure (see Section 690.02(4)). These procedures are to help WSDOT contractors and staff recognize and eliminate environmental violations during construction and ensure prompt notification of WSDOT management and agencies. Once notified, the ESO, in conjunction with the Regional Environmental Office (REO), can direct and coordinate management and disposal activities. WSDOT procedures require that any size spill to water, and any spill to soil that could impact human health, be reported to Ecology; all spills regardless of size shall be reported internally within WSDOT, as shown on Figure 620-1.

(b) Encountered USTs

Special consideration is necessary when USTs are encountered at WSDOT sites. The decommissioning of USTs is regulated by Ecology under WAC 173-360. The owner/operator of a site must notify Ecology within 24 hours of discovering a leak or release from a UST. If WSDOT is the site owner/operator, the Project Engineer (PE) and Regional Environmental Manager (REM) coordinate contacting Ecology. Once Ecology is notified, the ESO will coordinate subsequent site assessment activities. For more information, see Section 447.02(3) and Ecology's LUST web page:

http://www.ecy.wa.gov/programs/tcp/ust-lust/tanks.html

(c) Contact Numbers for Spills or Releases to Soil or Water

When a spill or release occurs at a WSDOT construction site, notifications shall be made internally within WSDOT and to appropriate local, state, or federal agencies as indicated below. Refer also to the flow chart in **Figure 620-1** for a summary of WSDOT Notification Procedures.

Life Threatening Spills

For life-threatening or serious hazardous materials incidents, local police, fire, and rescue services should also be contacted by calling 911.

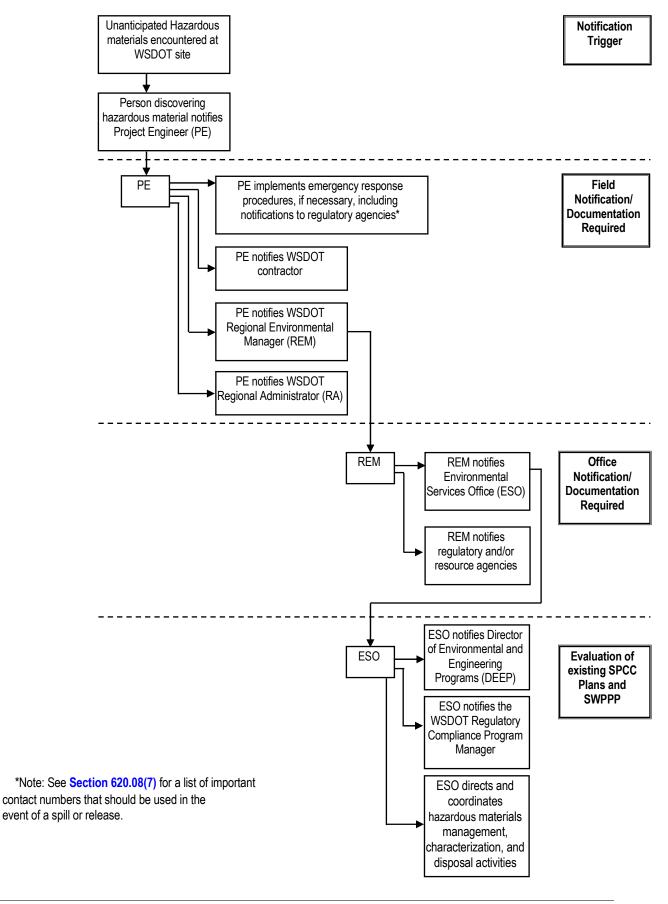
Spills to Water

For any quantity of spill or release to water, the following numbers shall be contacted immediately upon discovery:

National Spill Response Center: 1-800-424-8802

Washington State Emergency Management: 1-800-OILS-911

Figure 620-1: Summary Flow Chart of WSDOT Notification Procedures



Spills to Soil

For spills or releases to soil that are considered, based on best professional judgment and/or physical evidence (including but not limited to olfactory, visual, field instrument, and lab data), to be an immediate threat to human health and the environment, the appropriate Ecology office shall be contacted immediately upon discovery:

Ecology Northwest Regional Office: 425-649-7000
Ecology Southwest Regional Office: 360-407-6300
Ecology Central Regional Office: 509-575-2490
Ecology Eastern Regional Office: 509-329-3400

Spills or releases not considered to be an immediate threat to human health and the environment must be reported to the appropriate Ecology regional office within 90 days. Verbal and written notification may be required.

WSDOT Notification for all Spills

For any spill or release, the PE shall notify the Regional Environmental Manager and Regional Administrator (see **Appendix G**):

(d) Spills by Traveling Public

Neither WSDOT nor the contractor are obligated to immediately clean up spills that originate from the traveling public (accidents, leaking tanker trucks, etc.), whether or not they occur on a construction project. When such a spill is observed, notify the Washington State Patrol and Ecology to identify the responsible party. If the responsible party cannot be identified soon enough for construction purposes and/or if the spill represents an immediate threat to human health and the environment, the WSDOT Maintenance Environmental Office may be able to clean up the spill at no cost to the project. Alternatively, to the extent the construction budget can accommodate the action, the contractor may be called upon to perform cleanup activities. Cleanup costs may be recovered at a later date if and when the responsible party is identified.

(8) Documentation Requirements

WSDOT requires that the PE and REO document the notification process when hazardous materials are encountered. These documentation procedures are outlined in the WSDOT Construction Manual, Section 1-2.2K(1)(D).

Local and state agencies also require documentation for certain activities when hazardous materials are encountered. For example, the local clean air agency may require documentation and notification for activities such as demolition or abatement of asbestos containing materials and Ecology requires documentation for UST removal and site characterization. Also, local health authorities regulate and require documentation for disposal of solid waste to landfills (see Section 447.02(3)).

(9) On-Site Management of Hazardous Materials

Once notified, the ESO coordinates and directs hazardous waste management activities. Exhibit 620-1 summarizes the hazardous materials that could be

encountered at WSDOT sites and may require special consideration for on-site management.

After the notification procedures have been initiated, the PE, in coordination with ESO and WSDOT's Safety Office, should assess the health and safety situation at the site to determine whether WSDOT workers can safely continue working (see Section 620.08(11)). The PE and the ESO review the project SPCC Plans and SWPPP, evaluate the effectiveness of existing best management practices (BMPs), discuss whether other corrective actions may be necessary, and determine how to prevent an off-site release of the material.

For hazardous materials encountered on WSDOT projects, an immediate, complete cleanup is not typically required. The level of effort required for waste characterization and site cleanup is determined by WSDOT on a site-by-site basis and depends heavily on the anticipated future uses of the site, available budget, and project schedule. However, it is in WSDOT's best interest to remove as much of the contaminated material as allowed under the budget and schedule to avoid potential future cleanup actions.

(a) Potentially Contaminated Soil, Water, Air, Sediment, Sludge

If site conditions allow, a soil stockpile area should be established for potentially contaminated soil, incorporating BMPs such as a lining, silt fences, straw bales, and cover material.

If sufficient space is unavailable on the project site, soil can be stockpiled on other WSDOT-owned sites such as maintenance yards or borrow areas until it can be characterized. Alternatively, roll-off boxes, Baker tanks, or 55-gallon drums may be used to contain the waste. Some treatment, storage, and disposal facilities allow temporary storage of containerized waste pending the results of characterization analysis. Regardless of where the soil is stockpiled, potentially contaminated soil should be properly covered as defined in WSDOT Standard Specifications (M 41-10) Section 8.01 that specifies methods of erosion control and water pollution control.

Soil or sediment suspected of being contaminated through olfactory or visual evidence should be segregated and placed in a stockpile until it can be characterized (sampled and analyzed) by ESO or other qualified staff, or as directed by the project engineer.

According to WAC 296-24-95601, a qualified person is someone familiar with the construction and operation of equipment used at a site and the hazards involved. In general, WSDOT personnel are considered qualified to collect initial waste characterization samples if they have a minimum of 24 hours of hazardous waste operations training (HAZWOPER). However, the site-specific hazard assessment and evaluation set forth in WAC 296-843-11005 and WAC 296-843-11010 determines the level of training actually needed.

The ESO can direct dewatering activities for other contaminated media such as water or sludge. Airborne contaminants such as dust laden with heavy metals should be controlled using dust suppression methods, such as water trucks and mulch. WSDOT and its contractor should be aware that

adding clean material to existing contaminated material increases the volume of contaminated material, may be difficult to separate at a later date, and may increase overall disposal costs.

(b) Specific Hazardous Materials

The ESO coordinates the management of specific hazardous materials such as USTs, asbestos, arsenic-contaminated soil, and lead-based paint. Refer to Section 447.05(7) for WSDOT requirements for specific hazardous materials.

(10) Disposal of Hazardous Materials

Disposal options for hazardous materials are based on type and level of contamination as determined through correct sample collection and analytical testing. Coordination with the ESO will ensure proper sample planning, collection, and testing for disposal. If not already outlined in the project specifications, the ESO will contact the appropriate disposal facility or disposal contractor, verify the analytical requirements and number of samples necessary to characterize the material, and facilitate laboratory analysis of waste characterization samples. WSDOT is mandated to use state contracts for the disposal of hazardous materials from WSDOT sites. Contractors may use other vendors of their choice.

(a) Disposal Services Overview

State Contract No. 07198 – Hazardous Waste Disposal-Recycling Services covers several types of hazardous waste, such as waste oil, waste paint, solvents, batteries, and PCBs. This contract can be viewed online at:



State Contract No. 00301 – Disposal of Contaminated Solid and Liquid Waste, covers contaminated soil, sediments, sludge, construction demolition debris, asbestos-containing materials, and contaminated liquids, including groundwater, surface water, stormwater, and decontamination water. This contract can be viewed online at:

http://www.ga.wa.gov/pca/contract/00301c.doc

State Contract No. 11601 – Spent Lighting, Computer, and Electronic Equipment Collection, Reuse, Recycling, and Disposal Services can be viewed online at:

http://www.ga.wa.gov/pca/contract/11601c.doc

(b) Laboratory Services Overview

The ESO coordinates characterization of hazardous materials for disposal.

Contracted laboratories perform analyses required to characterize hazardous materials such as total petroleum hydrocarbons, pesticides/herbicides, PCBs, BTEX, halogenated volatile organics, total metals analysis, asbestos, TCLP, and flash point. Many laboratories are able to perform most analyses within 24 hours to 48 hours with a premium charge.

WSDOT is mandated under State Contract No. 00801 to use contract laboratories for waste characterization and other sample analysis. This contract can be viewed online at:

https://fortress.wa.gov/ga/inet/servlet/PCAContractDetailSv?contnbr=

Contractors may use a vendor of their choice provided that the laboratory is accredited by Ecology, since it is WSDOT policy to use only accredited laboratories. More than 380 laboratories accredited by Ecology in Washington State under WAC 173-240 can be queried by city or county at Ecology's web site, which can be accessed at:

http://www.ecy.wa.gov/apps/eap/acclabs/labquery.asp

(c) Sampling Requirements for Characterization

The ESO coordinates collection of waste characterization samples according to the requirements of the selected disposal facility or disposal contractor and according to MTCA or other regulatory requirements. The ESO also consults with the laboratory regarding sample volume, container, and shipping requirements for the specific analyses to be completed.

In the event ESO staff are not available to collect samples for waste characterization, adequately trained WSDOT regional Project Engineering Office staff may perform sample collection activities. The ESO can provide training and guidance on how to collect samples, preventing cross contamination of samples, the number of samples required, and how to store and deliver samples to a laboratory. The ESO can also provide coordination between the analytical laboratory and the disposal company to ensure that the proper sampling requirements are met.

- Waste Characterization for Off-Site Treatment or Disposal The number of samples and type of analyses required to characterize waste for off-site treatment or disposal largely depends on varying permit requirements of the selected disposal facility. For example, the disposal facility may require discrete grab samples be collected to characterize soil for disposal based on tonnage (e.g., one sample for the first 30 tons, three samples for 150 tons or less, etc.).
- Waste Characterization for On-Site Reuse The number of samples and type of analyses required for on-site reuse of hazardous materials is coordinated by the ESO. The acceptable level of contamination allowed to remain on site depends on the type of site use (residential, commercial, or industrial) and the presence of critical areas on or near the site. In some cases, contaminated water may be disposed of by means of sanitary/storm sewers, provided that certain criteria are met.
- Cleanup Levels Cleanup levels are regulated by Ecology under the Model Toxics Control Act (WAC 173-340) and Dangerous Waste Regulations (WAC 173-303) and are determined for each project by Ecology in consultation with the ESO. The level of effort necessary to remediate each site depends on the project needs and conditions,

such as future site use and whether final construction will preclude the future ability to clean up the site.

(d) Transport and Manifesting of Hazardous Waste

The ESO coordinates transport and manifesting of hazardous waste from WSDOT sites. When these materials are encountered, WSDOT is considered to be the generator and is responsible for obtaining hazardous waste permits (e.g., Form 2, see Section 540.24). Regulations regarding hazardous materials packaging, manifesting, transport, and other requirements are set forth by the U.S. Department of Transportation under Chapter 49 CFR. The bulk of these regulations are listed in Parts 172 and 173. A summary of information regarding transportation and manifesting requirements for hazardous materials titled "Guide for Hazardous Materials Shipping Papers" can be viewed online at the National Transportation Library web site:

http://ntl.bts.gov/DOCS/hmtg.html

49 CFR Part 172, "Hazardous materials table, special provisions, hazardous materials communications, emergency response information, and training requirements," can be viewed online at:

http://www.access.gpo.gov/nara/cfr/waisidx_03/49cfr172_03.html

49 CFR Part 173, "Shippers – general requirements for shipments and packagings," can be viewed online at:

http://www.access.gpo.gov/nara/cfr/waisidx_03/49cfr173_03.html

Manifests are not required for disposal of problem wastes such as low-level petroleum-contaminated soil and asbestos-containing materials. However, WSDOT must determine on a case-by-case basis how contaminated wastes that do not exceed a regulatory cleanup level are disposed of. In some cases, problem wastes can and should be reused onsite. Under project contracts, problem waste becomes the responsibility of the WSDOT contractor when such waste is encountered at a WSDOT site. The contractor is responsible for securing county permits, if required, for waste disposal or reuse, and for following all state water quality and air quality standards as stated in WSDOT standard specifications.

Two types of landfills accept the majority of wastes potentially encountered at WSDOT sites. Problem wastes can be accepted at limited purpose landfills or sent to a treatment facility to be treated or recycled. Inert wastes, defined in WAC 173-350-990, include wastes such as concrete, asphalt, masonry, and glass that can be disposed of at an inert waste landfill. Land clearing wastes containing woody debris may be reused on-site or disposed of at a wood waste landfill. Refer to Section 620.08(10)(a) for details regarding state contracts that cover hazardous materials disposal.

(11) Health and Safety Requirements for Contractor and WSDOT Employees

All contractors working for WSDOT must provide controls to ensure the health and safety of their employees and other persons, to prevent property damage, and

to avoid interruptions in the performance of the work under the contract. Specific WSDOT contractor requirements for health and safety are in Section 1-2.2(I) of the WSDOT Construction Manual (M 41-01), and are summarized in EPM Section 447.02(3). Exhibit 620-1 summarizes various types of hazardous materials that could be encountered at WSDOT sites and may require special health and safety considerations for site workers and WSDOT personnel.

WSDOT inspectors performing characterization or field screening of unanticipated hazardous materials are not required by law to have 40-hour HAZWOPER training. In general, WSDOT personnel are considered qualified to perform initial characterization or field screening of hazardous materials if they have a minimum of 24 hours of HAZWOPER training (often referred to as first responder training). However, it is the site-specific hazard assessment and evaluation set forth in WAC 296-843-11005 and -11010 that determine the level of training actually needed.

It is not WSDOT policy to enforce Washington Labor and Industry (L&I) requirements, but rather to communicate with contractors when hazardous materials are known or anticipated to be present at a WSDOT site. Worker health and safety is solely the responsibility of WSDOT contractors. In general, only the contractor personnel directly involved with addressing encountered hazardous materials at a WSDOT site need hazardous materials training. The mere presence of hazardous materials at a site does not necessitate all contractor personnel to have the training.

(12) Permits and Approvals

Please see Section 540.24 for details.

(13) Non-Road Requirements

Please see Section 447.07 for details.

620.09 Other Elements of the Environment

Other environmental issues include consistency with local growth management and other plans, shoreline regulations, farmlands, Section 4(f) and Section 6(f) requirements, and historic/cultural resources. These issues will have been analyzed and documented during project development and any relevant requirements included in contract special provisions. This section highlights potential issues that could arise during construction and references background information in **Chapter 450** through **Chapter 470**.

(1) Land Use Plans, Growth Management

See Chapter 451 for background on land use or growth management requirements that may apply to the project; see Section 550 for local permits and approvals.

(2) Coastal/Shorelines

See Chapter 452 for background on any coastal/shoreline requirements that may be included in contract documents; see Section 540.03 and Section 550.02 for state and local permits and approvals.

(3) Wild and Scenic Rivers

See Chapter 453 for background on any wild and scenic rivers requirements that may be included in contract documents.

(4) Farmlands

See Chapter 454 for background on any farmlands requirements that may be included in contract documents.

(5) Public Lands (Forests)

For work in forested areas, the Project Engineer should encourage the contractor to comply with all federal and state forest rules and regulations governing the protection of forests and carrying out work within national and state forests. The contractor shall take all reasonable precautions to prevent and suppress forest fires. The Project Engineer shall report to the nearest forest fire warden at the earliest possible moment the location and extent of any fire and shall take immediate steps to control the fire if practicable (WSDOT *Construction Manual* (M41-01) Section 1-2.2D). For a Memorandum of Understanding between WSDOT and the U.S. Forest Service regarding coordination of transportation activities on National Forest Lands, see Section 455.04.

See Chapter 455 for background on other public lands requirements that may apply to the project. See Section 520.13 for authorization to use federal lands, and Section 540.17 for easements and use permits on state owned land.

(6) Historic and Cultural Resources

See Chapter 456 for background on historic and cultural resource requirements that may apply to the project. See Section 520.05 for federal archaeological resources protection permit, and Section 540.22 for state permit. Also see the *Construction Manual*, Section 1-1.10.

It is both national and state policy to preserve historical and prehistorical objects and ruins. These may include sites, buildings, artifacts, fossils, or other objects of antiquity that may have some particular significance from a historical, cultural, or scientific standpoint.

Material sources, storage areas, pit sites, staging areas, and other areas used for WSDOT projects are subject to Section 106 compliance. For state-owned sites, the Project Engineer should coordinate with the Region to ensure that material sources have been surveyed and cleared for cultural resources, so that known archaeological resources may be avoided. For contractor-owned sites, the contractor is required to obtain all necessary permits to operate the site. This will have included addressing historic and cultural preservation in the SEPA environmental checklist.

If there is a known probability of encountering historical objects, the contract will most likely have included provisions for archaeological and paleontological salvage. The special provision will usually define any potential sites, and outline any recognized salvage procedures or required salvage provisions. (See Exhibit 620-3.)

If there is no special provision for archaeological and paleontological salvage in the contract, Section 1-07.16(2) Archaeological and Historical Objects, requires the contractor to notify the Project Engineer and take action to preserve the

objects or ruins. Once they have been sufficiently protected, the Project Engineer should immediately notify the Region Construction Manager, who will provide any necessary initial assistance to the Project Engineer.

Where the Region determines appropriate, the Project Engineer will contact and inform through existing Region contracts and Region affiliations, Eastern Washington University, the State Historic Preservation Officer (SHPO), and FHWA of the discovery.

The Project Engineer will also help facilitate any on-site meetings for the appropriate parties should either FHWA, SHPO, or Eastern Washington University believe it necessary.

The most current information on unanticipated or inadvertent discovery during construction is online at:

http://www.wsdot.wa.gov/environment/culres/default.htm

(7) Environmental Justice

See **Chapter 458** for background on environmental justice requirements that may apply to the project.

(8) Aesthetics and Visual Quality

See Chapter 459 for background on aesthetics and visual quality requirements that may apply to the project.

Visual quality referred to in FHWA guidance on construction impacts.

620.10 Transportation/Traffic

Traffic control, pedestrian safety are environmental issues under NEPA/SEPA, and impacts will have been considered during project development. See Chapter 460 for background on transportation and traffic requirements that may apply to the project.

When the work area encroaches upon a sidewalk, crosswalk, or other areas that are near an area utilized by pedestrians or bicyclists, special consideration should be given to their accommodation and safety. Pedestrians are more susceptible to personal injury in work areas than are motorists. Visibility and recognition of hazards is an important requirement for the safety of pedestrians and bicyclists. For details, see WSDOT's *Construction Manual* (M 41-01), Section 1-2.2 I(5).

When railroads are involved within the project limits, an agreement covering the work is usually entered into between WSDOT and the railroad company. If an agreement has not been made, the Project Engineer should coordinate and monitor the development and processing of the agreement. See WSDOT *Construction Manual* (M 41-01), Section 1-2.2F.

620.11 Public Services and Utilities

See Chapter 470 for background on public service and utilities requirements that may apply to the project. See also Chapter 810 for utilities accommodation issues.

In some cases, utility adjustments will be completed prior to contract work. In other cases, adjustments are to be made concurrently with the work. For details on Project

Engineer and contractor responsibilities, see the WSDOT *Construction Manual* (M 41-01), Section 1-2.2E.

620.12 Non-Road Requirements

No special requirements identified.

620.13 Exhibits

Exhibit 620-1 – Hazardous Materials That May Be Encountered at WSDOT Sites During Construction.

Exhibit 620-2 – WSDOT Standard Specifications for Ensuring Continuity of Work When Hazardous Materials Are Encountered.

Exhibit 620-3 – Construction Procedures for Discovery of Archaeological and Historical Objects.

Hazardous Materials That May Be Encountered at WSDOT Sites During Construction

HAZARDOUS MATERIAL	INDICATORS	AFFECTED MEDIA
Petroleum- or solvent-contaminated soil	Stained soil, free product, sheen on surface water or groundwater, sweet petroleum odor	Soil, water, air, sediment, sludge
Underground storage tanks (USTs)	Remnant tank, product piping, vent pipes, fill ports, or dispenser island(s); stained soil; free product; sheen on surface water or groundwater; sweet petroleum odor	Soil, water, air, debris, sediment, sludge
Aboveground storage tanks (ASTs)	Remnant tank, product piping, or dispenser island(s); stained soil; free product; sheen on surface water or groundwater; sweet petroleum odor	Soil, water, air, debris, sediment, sludge
Polychlorinated biphenyls (PCBs)	Electrical transformers, stained soil, oily free product, sweet metallic odor	Soil, water, air, debris, sediment, sludge
Metals	Stained soil, metallic odor, dust	Soil, water, air, sediment, sludge
Asbestos-containing materials (ACM)	Construction debris, floor and ceiling tiles, pipe insulation, roofing and siding materials	Soil, air, debris, sediment, sludge
Lead-based paint (may include chromium, cadmium, copper)	Construction debris, peeling paint	Soil, water, air, debris, sediment, sludge
Mercury in fluorescent lights and ballasts	Construction debris	Air, debris
Pesticides, herbicides, fungicides	Stained soil, dead vegetation; more common in rural areas	Soil, water, air, sediment, sludge
Unlabelled drums or containers	Stained soil, unknown liquid or other material, sheen on surface water or groundwater, sweet or acrid chemical odor	Soil, water, air, debris, sediment, sludge

WSDOT Standard Specifications for Ensuring Continuity of Work When Hazardous Materials Are Encountered

Specification	Title	Description
Section 1-04.7	Differing Site Conditions	This section requires the contractor to notify the WSDOT PE immediately of any changes in materials encountered that differ from that provided in the contract, including the detection of unanticipated contamination. The engineer then determines:
		 The action to be taken. If additional monies are due to the contractor to perform the work. If an extension of time will be granted to perform the work.
		The contractor and all WSDOT personnel must follow the notification procedures outlined in the WSDOT Construction Manual M41-01 and summarized in EPM Section 620.08(7) , Figure 620-1 .
Section 1-04.11	Final Cleanup	This section requires that the contractor shall perform final site cleanup to the PE's satisfaction. The PE will not establish the physical completion date until this is done. Site cleanup refers to cleanup of construction-related materials and debris and does not mean complete site remediation of hazardous materials. The highway right of way, material sites, and all ground the contractor occupied to do the work shall be left neat and presentable. The contractor shall remove all rubbish, surplus materials, discarded materials, falsework, camp buildings, temporary structures, equipment, and debris.
Section 1-05.1	Authority of the Engineer	This section stipulates that the contractor must follow the direction of the WSDOT PE. If the Contractor fails to respond promptly to the requirements of the contract or orders from the PE:
		 The PE may use Contracting Agency resources, other contractors, or other means to accomplish the work, and The Contracting Agency will not be obligated to pay the contractor, and will deduct from the contractor's payments any costs that result when any other means are used to carry out the contract requirements or Engineer's orders.
		At the contractor's risk, the PE may suspend all or part of the work if:
		 The contractor fails to fulfill contract terms, to carry out the Engineer's orders, or to correct unsafe conditions of any nature.
		Getting the contractor to carry out their spill plan is the most cost effective, efficient means of responding to a spill. If it becomes necessary for the agency to use one of their on-call environmental consultants, the contractor should be made aware that the agency has the ability to deduct from the contractor's payments any costs resulting from the need to carry out the contract requirements.
Section 1-05.9	Equipment	This section states that the PE will reject equipment that repeatedly breaks down or fails to produce results within the required tolerances. The contractor shall have no claim for additional payment or for extension of time due to rejection and replacement of any equipment.

Supplification	T:41a	Description
Specification Section 1-05.11	Title Final Inspection	This section states that the PE will not make the final inspection until the physical work required by the contract, including final cleanup and all extra work ordered by the Engineer, has been completed. Te physical completion date for the contract will be determined as provided in Section 1-08.5.
		Over the course of a project, small leaks and drips can cumulatively add up to create a toxic cleanup site subject to Ecology regulations. Contractors should be encouraged to address leaks and drips to soil in a timely manner so that a rain event doesn't result in contamination to surface water. In cases where the contractor has not addressed these problems as they occur, he/she should be held accountable during final cleanup. WSDOT should not be held responsible for performing environmental cleanup because the contractor performed poorly.
Section 1-05.13	Superintendents, Labor, and Equipment of Contractor	This section states that, at the PE's written request, the contractor shall immediately remove and replace any incompetent, careless, or negligent employee. Noncompliance with the request shall be grounds for terminating the contract under the terms of Section 1-08.10.
		Any WSDOT employee that observes a contractor ignoring environmental responsibilities may notify the PE regarding having the contractor removed from the project.
		The contractor shall keep all machinery and equipment in good, workable condition. It shall be adequate for its purpose and used by competent operators. The PE will rate the contractor's performance and contract compliance in these categories:
		 Progress of Work, Quality of Work, Equipment, Administration/Management/Supervision, and Coordination and Control of subcontractors.
Section 1-07.1	Laws to be Observed	This section requires that the contractor shall always comply with all Federal, State, or local laws, ordinances, and regulations that affect work under the contract. The contractor shall indemnify, defend, and save harmless the State (including the Commission, the Secretary, and any agents, officers, and employees) against any claims that may arise because the contractor (or any employee of the contractor or subcontractor or material person) violated a legal requirement.
		If the WSDOT inspector is having difficulty gaining voluntary compliance, it is acceptable to contact the regulatory agency for assistance. In such cases, if Ecology issues a fine, it will likely be issued to the contractor rather than WSDOT.
Section 1-07.5(3)	State Department of Ecology	This section requires that the contractor shall dispose of hazardous materials in ways that will prevent their entry into State waters, all: Toxicants (including creosote, oil, cement, concrete, and
		eqipment wash water); andDebris, overburden, and other waste materials.
		Notify the Ecology Department immediately should oil, chemicals, or sewage spill into State waters. The contractor is contractually responsible for contacting Ecology should a spill occur. WSDOT is also legally responsible for ensuring that contact is made.

Specification	Title	Description
Section 1-07.13(4)	Repair of Damage	This section states that the contractor shall promptly repair all damage to either temporary or permanent work as directed by the Engineer. For damage qualifying for relief under Sections 1-07.13(1), 1-07.13(2), or 1-07.13(3), payment will be made in accordance with Section 1-04.4. Payment will be limited to repair of damaged work only. No payment will be made for delay of disruption to the work. The PE may elect to accomplish repair by Contracting Agency forces or other means.
Section 1-07.14	Responsibility for Damage	This section states that the contractor, and not WSDOT, is responsible for losses or damages. The State, Commission, Secretary, and all officers and employees of the State, including but not limited to those of WSDOT, will not be responsible in any manner for any loss or damage that may happen to the work or any part, or for damage to the public for any cause which might have been prevented by the contractor, or the workers, or anyone employed by the contractor.
		The contractor shall be responsible for any liability imposed by law for injuries to, or the death of, any persons or damages to property resulting from any cause whatsoever during the performance of the work, or before final acceptance.
		The contractor shall also bear sole responsibility for any pollution of rivers, streams, groundwater, or other waters which may occur as a result of construction operations. The contractor shall exercise all necessary precautions throughout the life of the project to prevent pollution, erosion, siltation and damage to property.
Section 1-07.15(1)	Spill Prevention, Control, and Countermeasures Plan	The contractor shall prepare a project-specific spill prevention, control and countermeasures (SPCC) plan to be used for the duration of the project. The plan shall be submitted to the PE prior to the commencement of any on site construction activities. The contractor shall maintain a copy of the plan at the work site, including any necessary updates as the work progresses. If hazardous materials are encountered during construction, the contractor shall do everything possible to control and contain the material until appropriate measures can be taken.
		The SPCC plan shall address the following project-specific information:
		 A. Site Information B. Project Site Description C. Spill Prevention and Containment D. Spill Response E. Standby, On-Site, Material and Equipment F. Reporting G. Program Management H. Preexisting Contamination
		If preexisting contamination in the project area is described elsewhere in the plans or specifications, the SPCC plan shall indicate measures the contractor will take to conduct work without allowing release or further spreading of the materials.
Section 1-08.8	Extensions of Time	This section describes the requirements and conditions under which the contractor may request an extension of time, and the engineer's right to determine if the extension should be granted.

Specification	Title	Description
	Termination for Default	This section states that the Contracting Agency may terminate the contract upon the occurrence of any one or more of the following events:
		 If the contractor fails to supply sufficient skilled workers or suitable materials or equipment (ESC/Spill Lead); If the contractor disregards laws, ordinances, rules, codes, regulations, orders or similar requirements of any public entity having jurisdiction; If the contractor disregards the authority of the Contracting Agency; If the contractor performs work which deviates from the contract and neglects or refuses to correct rejected work; or If the contractor otherwise violates in any material way any provisions or requirements of the contract.
		The contractor shall bear any extra expenses incurred by the Contracting Agency in completing the work, including all increased costs for completing the work, and all damages sustained, or which may be sustained, by the Contracting Agency by reason of such refusal, neglect, failure, or discontinuance of work by the contractor.
Section 1-09.4	Equitable Adjustment	This section provides the guidelines for determining equitable adjustment when performing unanticipated work.

 $Source: Washington \ State \ Department \ of \ Transportation. \ 2004. \ Standard \ Specifications, \ M\ 41-10.$

Construction Procedures for Discovery of Archaeological and Historical Objects

Following is a General Special Provision to be added to contract specifications as indicated. More recent updates may be available via WSDOT's web site:



http://www.wsdot.wa.gov/eesc/design/projectdev/gsppage1.htm

Select Division 1

Also refer to Standard Specifications 2004, page 1-64.



http://wwwi.wsdot.wa.gov/eesc/cons/pdfs/SS2004b.pdf

GENERAL SPECIAL PROVISIONS DIVISION 1

0716.GR1 – Protection and Restoration of Property

071604.GR1 - Archaeological and Historical Objects (December 6, 2004)

Use in projects when reconnaissance studies indicate that there is the probability of finding cultural remains within the project limits which will require monitoring the project area during clearing, grubbing or excavation operations. Requires a pay item.

Section 1-07.16(4) is supplemented with the following:

The project area potentially contains archaeological or historical objects that may have significance from a historical or scientific standpoint. To protect these objects from damage or destruction, the Contracting Agency, at its discretion and expense, may monitor the Contractor's operations, conduct various site testing and perform recovery and removal of such objects when necessary.

The Contractor may be required to conduct its operations in a manner that will accommodate such activities, including the reserving of portions of the work area for site testing, exploratory operations and recovery and removal of such objects as directed by the Engineer. If such activities are performed by consultants retained by the Contracting Agency, the Contractor shall provide them adequate access to the project site.

Added work necessary to uncover, fence, dewater, or otherwise protect or assist in such testing, exploratory operations and salvaging of the objects as ordered by the Engineer shall be paid by force account as provided in Section 1-09.6. If the discovery and salvaging activities require the Engineer to suspend the Contractor's work, any adjustment in time will be determined by the Engineer pursuant to Section 1-08.8.

To provide a common basis for all bidders, the Contracting Agency has entered an amount for the item "Archaeological and Historical Salvage" in the Proposal to become a part of the total bid by the Contractor.

690.01 Introduction

690.02 Implementing Environmental Commitments During Construction

690.03 Exhibits

Key to Icon



Web site.*

690.01 Introduction

This chapter reviews the implementation of project commitments in the field during construction and the process for passing commitments that require long-term care to Maintenance.

As a project progresses through the Design and PS&E Phases (Part 4 and Part 5 of this Manual) many commitments in the form of mitigation plans and permit conditions are made to the various resource agencies to protect the environment, reduce social impacts, and protect cultural and historic resources. Some of those commitments must be fulfilled during construction.

Interagency agreements between WSDOT and resource agencies also include environmental commitments, some of which are applicable to construction. These are summarized in Section 610.03 and discussed in Chapter 420 through Chapter 470. Appendix E includes an index to all WSDOT environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. Appendix E also includes a matrix and an accompanying narrative showing which agreements have provisions applicable construction.

In addition, some statutory requirements do not involve permits or approvals, but still apply to WSDOT construction; for example dangerous waste and underground storage tank requirements. See **Chapter 610** and **Chapter 620** for requirements applicable to construction.

Some of those commitments are unique to a given project and attached to the contract as special provisions or provided to the Construction Engineer for implementation. Other requirements are Standard Operating Procedure for WSDOT; these can be found in the Standard Specifications, WSDOT *Construction Manual* (M 41-01) and *Right of Way Manual* (M 26-01).

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

690.02 Implementing Environmental Commitments During Construction

(1) Responsibility for Environmental Commitments

Under the terms of the contract, the contractor is responsible for complying with all federal, state, and local rules, regulations, and permit conditions related to environmental protection and worker health and safety.

The Project Engineer is responsible for the enforcement of the contract specifications and provisions and the completion of all work according to the plans. The Project Engineer may have additional responsibilities including notification of resource agencies prior to beginning certain work.

See the WSDOT Construction Manual, Section CM 1-2.2A.

(2) Pre-contract Preparation

During the pre-contract period, the Project Engineer should obtain copies of environmental documents, lists of commitments, environmental job aids and any special environmental studies related to the project from the Regional Environmental Coordinator. All key personnel must become familiar with the environmental commitments made during the design process and with how programmatic agreements apply to the project. This may be done during a constructability review for environmental requirements.

The contract documents will include necessary provisions for environmental protection, including requirements that the contractor secure permits from and abide by regulations of appropriate federal, state and local agencies. Any changes in the contract work that may become necessary must be reviewed to ensure conformance with requirements and commitments established during the environmental review conducted during project design and development. See *Construction Manual*, Section CM 1-2.2J.

(3) Pre-construction Activities

(a) Meetings with Contractor

(1) Environmental Commitments

During pre-construction meetings and discussions with the contractor, the following environmental commitments should be discussed, and relevant files made available to the contractor:

- Environmental commitment files and reports from the Commitment Tracking System.
- Reference to environmental requirements or permits in the *Standard Specifications* or contract provisions.
- Explanation of how any programmatic agreements apply to the project.
- Clear delineation of contractor and WSDOT responsibilities.
- Contractor's responsibility to obtain any local agency permits.

If rock crushers are involved in the project, the State Department of Ecology (Ecology) registration requirements should be discussed (WAC 173-400). In addition, a written record of this discussion

should be sent to the regional office of Ecology so they are aware of the timing and location of the rock-crushing operation. (See *Construction Manual*, Section 1-2.1C.

(2) Other Submittals

Discuss any other submittals that will be needed during the contract and who is responsible. Environmental submittals may include traffic control plans, temporary water pollution/erosion control plans, and spill prevention plans. See *Construction Manual*, Section 1-2.1C.

(b) High-Visibility Fencing for Sensitive Areas

To prevent permit violations during construction, WSDOT Project Delivery Memo #04-04 (August 11, 2004) describes requirements for high-visibility fencing to delineate wetlands and sensitive areas. The memo (Exhibit 690-1) outlines criteria for identifying wetland and environmentally sensitive prior to commencing construction. Contract plans are to identify these areas and show the location of high visibility fencing.

(4) Construction Monitoring and Non-compliance Events

(a) Construction Monitoring

Environmental inspectors are identified for projects that pose a high level of environmental risk (e.g. projects with in-water work, those affecting sensitive receptors, endangered species or involve a lot of earth work near water bodies etc.). Those inspectors are responsible for monitoring the implementation of environmental commitments.

(b) Unforeseen Situations

Unforeseen situations will frequently occur during construction, for example, finding cultural artifacts, digging up an underground storage tank or encountering contaminated soil. These situations will likely trigger the Environmental Compliance Assurance Procedure discussed below. Sometimes these discoveries will require further review on the part of a resource agency. Refer especially to Section 620.04 (Water Quality), Section 620.05 (Wildlife, Fisheries, and Vegetation), Section 620.06 (Wetlands), Section 620.08 (Hazardous Materials), and Section 620.09 (Land Use, Cultural Resources, and any other sections) for more detail in addressing unforeseen circumstances.

(c) Corrective Action for Apparent Non-Compliance Events

As the owner-contracting agency, WSDOT is responsible for enforcing provisions of the contract. However, WSDOT must also monitor for compliance with all environmental commitments and provisions of regulations which are enforced by resource agencies. Any potential non-compliance events noticed by WSDOT or the contractor will be brought to the attention of the Region environmental staff to document the situation and coordinate a resolution. Coordination will follow the provisions of the Environmental Compliance Assurance Procedure for

Construction (ECAP). See Construction Manual, Section 1-2.2k(1) online at:

http://www.wsdot.wa.gov/environment/compliance/docs/ECAP.pdf

WSDOT will also notify the responsible agency if necessary and utilize such sanctions as are consistent with contract terms in assisting the responsible agency in enforcing laws, rules, and regulations. See also Construction Manual, Section 1-2.2I on safety and health, and Section 1-2.2J on environmental considerations.

When WSDOT employees observe something that is questionable or appears not to be in compliance with state or local laws, ordinances, and regulations, they must bring it brought to the Project Engineer's attention. The Project Engineer is responsible for bringing it to the contractors attention for proper action. Experts in the WSDOT's Regional Office or Headquarters Office or resource agencies should be consulted when dealing with complex issues such as environmental compliance, safety, or hazardous materials. See Construction Manual, Section 1-1.72.

*(*5*)* Maintenance Walkthrough

Prior to substantial completion of a project with commitments that will be passed to Maintenance and Operations, a Maintenance representative should be walked through the site and be shown any feature for which WSDOT has made longterm maintenance commitments. A representative from the Environmental Office with knowledge of the project's commitments should coordinate with the Project Engineer to organize the meeting and to ensure all the appropriate environmental commitments pertaining to long-term maintenance are reviewed and understood by the Maintenance representative. Documentation of the maintenance commitments should also be provided at that time.

(6) Final Inspection

Construction work on contracts financed in whole or in part with federal funds are subject to final inspection and final acceptance according to the criteria contained in the Construction Monitoring Plan (March 2003), which is part of the WSDOT/FHWA Stewardship Plan. Project type and size determine whether FHWA, the Headquarters Construction Office, or Regional Office will conduct the final inspection.

Final inspections will be performed on all federally aided projects any time after 90 percent completion, and no later than 30 days after physical completion. Final acceptance reports will be completed on all interstate projects delegated to WSDOT and will be completed by the OSC Construction Office as soon as all project requirements have been met. Some environmental commitments will require a final inspection and notification of completion to the resource agency. See Construction Manual, Sections 1-2.2D and 1-2.5H.

690.03 **Exhibits**

Exhibit 690-1 – High Visibility Construction Fencing – Project Delivery Memo #04-04.

High Visibility Construction Fencing – Project Delivery Memo #04-04



Memorandum

August 11, 2004

TO: J.C. Lenzi, Eastern Region

Don Senn, North Central Region

Lorena Eng, Northwest Region, NB82-101 Randy Hain, Olympia Region, 47440 Don Whitehouse, South Central Region Donald Wagner, Southwest Region, S15 Dave Dye, Urban Corridors, TB85-95

FROM: Don Nelson

360-705-7101

SUBJECT: **Project Delivery Memo #04-04 –** High Visibility Construction Fencing

Purpose and Direction

Background: A number of violations have recently occurred on WSDOT projects relating to unpermitted work in wetlands and other environmentally sensitive areas. These unfortunate occurrences are putting the Department at risk financially and hampering our efforts on permit streamlining. Permits from resource agencies have sporadically required that wetlands and sensitive areas be delineated with either silt fence or high-visibility construction fencing as a means to clearly mark the sensitive areas and thereby minimize the chance for violation. In many cases, however, the contract plans and special provisions have not been entirely clear as to where and when the fences need to be placed, and in some cases this requirement has been either overlooked or done late in the clearing and grubbing operation. Consequently, there have been inadvertent encroachments into wetlands and sensitive areas that were unfenced or otherwise unmarked.

Among recommendations that have resulted from internal investigations of recent violations, it was recommended that <u>all</u> sensitive areas be delineated with high-visibility construction fencing as a first order of work. Resource agencies in their settlement agreements have mandated that this and other recommendations be implemented.

Types of Projects Affected: This specification should be included on all projects where work will be in or adjacent to wetlands or other environmentally sensitive areas.

Direction: During the design phase, and in consultation with the Environmental Services Office or regional environmental office, wetlands and sensitive areas are identified and located with respect to the anticipated work areas. As plans are developed, the sensitive areas will be shown on the contract plans along with the locations where the construction fencing will be installed. High-visibility construction fencing will be required as follows:

• Where partial takes of wetlands are anticipated and clearly allowed by the appropriate permits, the remainder will be fenced.

- Where existing wetlands are to be enhanced as part of the project, they will be fenced until such time as an enhancement plan is submitted and approved by WSDOT.
- Areas that have been designated within the project where grading activity is to be precluded.
- During construction, Section 1-07.16(1) identifies areas the Project Engineer may designate to be protected from damage. These areas may be fenced at the Engineer's order. Compensation for fencing the wetland and sensitive areas will be by means of a change order. The project office staff is encouraged to work with region environmental staff if there is a question of whether an area is of an environmentally sensitive nature.

Value in Making the Change: The intent of this change is to provide positive identification of wetland and sensitive areas where equipment is not allowed to work, materials may not be placed except as allowed by permit, or normal activity is otherwise restricted by permit conditions. Installing the high-visibility fencing as the first order of work, and providing for a second check by WSDOT, is expected to keep encroachment into sensitive areas to a minimum.

Action Requested

Project Development

Provide for the identification and location of all wetland and environmentally sensitive areas. Show these areas in the contract plans and designate location of the required high-visibility construction fencing, according to the criteria outlined above.

Utilize this special provision for all projects where there will be wetland takes, wetland enhancement, or other work in or adjacent to environmentally sensitive areas.

Contract Ad and Award

For projects currently being advertised for bids, this provision will be added to the contract provisions by addendum, if it is possible to do so without impacting the bid opening. Addition of this provision to the contract provision will require associated changes to the plans to show the location and extent of the areas to be protected by fencing, and where the fence is to be placed.

Construction

Projects that are currently under contract, with wetlands or environmentally sensitive areas should consider adding high-visibility construction fencing by change order. This consideration should take into account the remaining work, as to whether there is still a need to provide the additional protection and delineation. The project office should follow the procedure outlined in Section 1-07.16(1) in requiring the contractor to provide the protection.

Identification of the extent of sensitive areas to be fenced should be done with input from the regional environmental staff. A change order will be required to provide compensation for the addition of the construction fencing.

DN:cd KJD/HJP/JRS Attachment

cc: John Conrad

Region Project Development Engineers Region Construction Engineers Region Construction Trainers Region Material Engineers Tom Baker Kevin Dayton Harold Peterfeso Megan White

ORDER OF WORK

Section 1-08.4 is supplemented with the following:

The first order of work on this project shall be the installation of fencing to delineate all wetland and sensitive areas. The areas shall be marked by the Contractor as shown on the plans. The delineation shall consist of High Visibility Fence as described below.

No other work shall be performed on the site until the Contracting Agency has accepted the installation of the wetland and sensitive area delineation. The acceptance shall be evidenced in writing.

Throughout the life of the project, the Contractor shall preserve and protect the wetland and sensitive area delineation, acting immediately to repair or restore any fencing damaged or removed.

High Visibility Fence shall be composed of high-density polyethylene material and shall be at least four feet in height. Posts for the fencing shall be steel or wood and shall be placed at six-foot centers or as needed to provide rigidity. The fencing shall be attached to the post every six inches with a polyethylene tie. Fencing shall not be fastened to the trees.

Measurement

"High Visibility Fence", per linear foot.

Payment

The unit price for "High Visibility Fence", per linear foot shall be full compensation for all costs to obtain, install, maintain, and remove the fencing as shown in the plans. Once removed, the fencing shall remain the property of the Contractor.

700.01	Introduction
700.02	Process Overview
700.03	Organization of Part 7
700.04	Abbreviations and Acronyms
700.05	Glossary
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700.01 Introduction

Part 7 summarizes environmental requirements covered in the WSDOT Maintenance Manual and Regional Road Maintenance Endangered Species Act Program Guidelines, and it gives additional details on several environmental issues with reference to Part 4 and Part 5 of the Environmental Procedures Manual, the Highway Runoff Manual (revised in March 2004), Roadside Manual, and other WSDOT documents.

At WSDOT, highway maintenance includes both maintenance and operations. The maintenance service objective, stated in the State Highway Systems Plan, is to "maintain and operate state highways on a daily basis to ensure safe, reliable, and pleasant movement of people and goods."

Maintenance work is performed to care for and maintain the highway and associated features so it substantially retains its original intended use and function. Maintenance activities include patching pavement, cleaning ditches and culverts, repairing slopes and streambank stabilization structures, controlling vegetation, and painting stripes on the road surface.

Operations activities affect the reliability of a direct service to users of the highway system. Activities include operating rest areas, reversible lane gates, highway lighting, traffic signals, snow and ice control, and keeping the roads operational during a disaster.

The information referenced in **Part 7** primarily applies to highway maintenance; it also covers procedures for compliance with state water quality standards applicable to ferry system maintenance activities.

700.02 Process Overview

Often environmental commitments made years before during Design and Environmental Review (Part 4) and Environmental Permitting and PS&E (Part 5) will require on-going maintenance and attention. Figure 700-1 illustrates the relationship between maintenance and operations and preceding phases of WSDOT's Transportation Decision-Making Process.

Among the maintenance activities that may impact the environment are painting, sanding, anti-icing, applying herbicide, mowing and brush control, restoring native plants, and maintaining drainage facilities. Maintenance facility material handling also can have environmental and safety implications for WSDOT employees and the general public. Environmental, health, and safety issues are being addressed through

an environmental management program for maintenance employees provided by WSDOT Headquarters (see *Maintenance Manual*, Chapter 11.).

Figure 700-1: Maintenance and Operations Phase

EPM Part 6	EPM Part 7			EPM Part 8	
Construction Phase	Maintenance and Operations Phase			Property Management Phase	
	Maintenance Accountability Program Scores	Prioritization of Tasks	Active Maintenance	Evaluation for Future MAP Scores	

700.03 Organization of Part 7

Part 7 has three chapters. Chapter 710 summarizes the environmental requirements applicable to WSDOT maintenance and operations, including those found in policy documents, interagency agreements, and permits and approvals. Chapter 720 briefly describes the WSDOT manuals which give detailed technical guidance on maintenance and operations, and summarizes the guidance applicable as general practices for all maintenance activities and specific practices for various activity groups. Chapter 790 reviews how environmental commitments made during transportation planning, project scoping and programming, design and environmental review, and permitting and PS&E are implemented during maintenance and operations.

700.04 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 7** are listed below. Others are found in the general list in **Appendix A**.

BMP Best Management Practice

GHPA General Hydraulic Project Approval

HPA Hydraulic Project Approval

NPDES National Pollution Discharge Elimination System

MAP Maintenance Accountability Program

PDA Personal Data Assistant

REM Regional Environmental Manager

RMEC Regional Maintenance Environmental Coordinator SPCC Spill Prevention, Control, and Countermeasures

700.05 Glossary

None. See **Appendix B** for a general glossary of terms used in the EPM.

700.06 Exhibits

None.

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710.05	Non-Road Project Requirements
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710.01 Introduction

Many environmental commitments made earlier in the WSDOT Transportation Decision-making process are implemented in maintenance and operations activities. For example, permits issued before a project is constructed may include plans for long term revegetation and restoration; wetland mitigation site maintenance; and spill prevention, control, and countermeasures (SPCC). This chapter summarizes the source of these commitments in policy guidance, interagency agreements, and permits and approvals, with reference to information in Part 4 and Part 5.

710.02 Policy Guidance

Secretary MacDonald's Environmental Policy Statement (September 26, 2001) makes it clear that WSDOT will comply with environmental requirements and that it is each individual employee's responsibility to ensure that happens. The policy is online at:



http://www.wsdot.wa.gov/environment/EnvPolicyStatement.htm

As stated above, the environmental requirements applicable to maintenance and operations activities are spelled out in the interagency agreements and permits and approvals referenced in this chapter. These include a Regional Road Maintenance Program (RRMP) approved by NOAA along with some *Regional Road Maintenance Endangered Species Act Program Guidelines* that include various general practices and specific practices (such as BMPs) that WSDOT will use to avoid and minimize adverse impacts to fish and aquatic habitat. In areas where none of the referenced documents apply, and there is potential for a maintenance activity to harm a fish or aquatic habitat protected under the ESA, BMPs will still be utilized to avoid and minimize adverse impacts. BMPs will generally be used for activities conducted within 300 feet of protected riparian areas. BMPs will also be used where some type of conveyance, such as a roadside ditch or channel, serves to potentially convey impacts beyond a 300-foot buffer. To assure adequate usage of BMPs, WSDOT is

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

identifying, mapping, and marking sensitive areas so maintenance field personnel know where to apply protective BMPs.

In some areas of Washington State (most notably the more arid parts of central and eastern Washington) highway maintenance activities have no potential to harm protected fish or aquatic habitat, simply because there is no habitat, fish, or conveyances to fish habitat in these areas. Under these circumstances, maintenance superintendents determine the need to use BMPs for operational efficiencies. See the Regional Road Maintenance Endangered Species Act Program Guidelines at:

http://www.wsdot.wa.gov/maintenance/roadside/esa.htm

WSDOT uses statewide Regional Maintenance Environmental Coordinator Meetings to identify and announce any modifications or changes to the Regional Road Maintenance Program (RRMP). New technologies are also discussed at these meetings. Modifications are shared with NOAA Fisheries for concurrence to maintain the status of "ESA compliant." Additional forums are utilized or created if needed to adequately include key stakeholders (i.e. federal and state regulatory agencies and additional WSDOT personnel) in changes of applicable environmental protection practices.

710.03 Interagency Agreements

Appendix E includes an index to all of WSDOT's environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. Appendix E also includes a matrix and an accompanying narrative showing which agreements have provisions applicable to maintenance and operations. These are summarized in this section.

These interagency agreements are accessible on line via the following Environmental Services Office link:



http://www.wsdot.wa.gov/environment/compliance/agreements.htm

(1) Compliance Implementing Agreement

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals.

This agreement, which primarily applies to compliance during the construction phase, includes a provision that maintenance and operations staff have received a copy of and understand all long-term compliance expectations, including mitigation site monitoring and maintenance.

Implementing Agreement on Water Quality Standards **(2)**

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards, currently being revised, is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions for concrete work, erosion control,

hazardous spill prevention and control, spill reporting, and specific provisions for erosion control in new roadway and bridge construction projects. (See Section 431.04.)

The Implementing Agreement also covers activity-specific conditions for the highway and ferry system maintenance activities listed below. Note that many of these activities are also covered by more recent General (programmatic) NPDES and Hydraulic Project Approval permits; see Section 540.08 and Section 540.15, respectively, for details.

- Beaver dam removal
- Ferry system maintenance pile driving and removal
- Highway bridge and ferry terminal transfer span cleaning and painting
- Bridge pier, structure, bridge protection device, stream bank and roadway protection maintenance and repair.
- Debris removal from bridge piers, piles, braces and abutments
- Ditch, stream, and culvert cleaning and maintenance
- Ferry sacrificial structures, wing walls, dolphins
- Maintenance and relocation of navigation buoys
- Maintenance of stormwater control and treatment structures

Both agreements are online at the WSDOT's ESO compliance web site or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/default.htm#interagency

(3) MOA Concerning Work in State Waters

This June 2002 agreement between WSDOT and WDFW replaces previous agreements including Compliance with the Hydraulic Code (8/90), Fish Passage Guidelines – Culvert Installations (8/90, and Work in State Waters (12/96). See Section 431.04.

The MOA describes how WSDOT and WDFW will cooperate to ensure that state transportation projects protect fish life and habitats, and ensure consistent and uniform application of RCW 77.55 (construction in state waters) and WAC 220-110 (hydraulic code rules). It includes procedures for emergency/disaster maintenance and repair. Appendix F is maintenance guidelines.

(4) Implementing Agreement – Alternative Mitigation Policy Guidance for Aquatic Permitting In this February 2000 agreement, WSDOT agrees to comply with consensus on mitigation policy among agencies responsible for aquatic resource mitigation. Applies to Ecology and WDFW in issuing or reviewing permits, documents, appeals or compensation agreements under Clean Water Act, Shoreline Management Act or Hydraulic Code. See Section 431.04.

Provisions applicable to maintenance and operations:

- Monitoring is required. If mitigation is failing and corrective actions not successful, applicant must contact permitting agencies and use an adaptive management approach to achieve stated performance standards.
- Compliance monitoring may be performed by agencies.

 Mitigation site to be protected permanently or at least for the life of the project.

(5) Implementing Agreement – Wetlands Protection and Management

This July 1993 agreement between WSDOT and Ecology clarifies and promotes interagency coordination in wetland protection and management. The two agencies determine policies of mitigation, preservation, mitigation banking and training programs. See Section 437.04.

Provisions applicable to maintenance and operations:

- Monitoring the mitigation by systematic evaluation of the development of a constructed wetland to determine success.
- Annual field review and evaluation of WSDOT mitigation sites.

(6) MOA – Wetland Compensation Banking

This February 1994 agreement between WSDOT, WDFW and several federal agencies, establishes principles and procedures for establishing, implementing, and maintaining the WSDOT wetland compensation bank program. See Section 437.04.

Requirements for inspections and monitoring.

- Semi-annual inspections for five years after as-builts accepted, and annually thereafter.
- WSDOT will use inspection checklist in Appendix E to document inspections.
- Appendix F is elements of a monitoring plan and report, includes monitoring checklist
- WSDOT retains responsibility for inspections if management and maintenance of the site is transferred to another agency or entity.

(7) Implementing Agreement – Hazardous Waste Management

In this May 2000 agreement, Ecology and WSDOT agree to cooperate in issues related to hazardous waste management and reduction, site remediation, and regulatory compliance. WSDOT commits itself to full compliance with hazardous waste management and cleanup laws and regulations. See Section 447.04.

Provisions applicable to maintenance and operations:

- WSDOT will conduct hazardous waste audits of its buildings and facilities on a regular basis, and will identify opportunities for hazardous substance reduction and recycling.
- Specifies WSDOT responsibilities for oil and hazardous substance spills.
- WSDOT will follow Washington manifest requirements when manifesting hazardous wastes.

(8) MOU on Preservation of Agricultural and Forest Lands

This September 1982 agreement between WSDOT and the State Conservation Commission is intended to enhance cooperation in preserving agricultural and forest land, to prevent and treat erosion adjacent to or associated with farmlands and state highways, and maintain drainage ways and reclaim abandon roadways for agricultural purposes. See Section 454.04.

The agreement commits WSDOT to work with conservation districts through county weed control boards or appropriate county officials to control noxious weeds.

(9) MOU on Highways over National Forest Lands

This March 2002 MOU establishes procedures for coordinating transportation activities on National Forest lands. See Section 455.04.

Provisions applicable to maintenance and operations:

- WSDOT will coordinate with USFS on maintenance activities that might
 affect national forest lands, including: removal/disposal of dangerous trees,
 disposal of slash or other waste, material source or storage, changes to
 drainage patterns, snow and avalanche control, rock scaling.
- WSDOT will work with USFS to develop roadside vegetation management plans.
- WSDOT will furnish and maintain all standards highway signs, including guide signs requested by the USFS.
- WSDOT will coordinate with USFS for third party occupancy or use by utility facility installations on WSDOT easements.
- Specifies responsibilities for signage for maintenance or emergency activities.
- Specifies responsibilities for control of access to WSDOT easements by USFS or its permitees.

710.04 Permits and Approvals

Permits and approvals applicable to WSDOT activities are described in detail in Chapter 520 through Chapter 550. Most WSDOT maintenance activities are covered by general or programmatic permits (particularly ESA Section 4(d), Section 520.08; NPDES permits, Section 540.08; and HPAs, Section 540.15. However, some WSDOT maintenance activities are required to obtain individual permits from federal, tribal, state, or local authorities. Permit conditions provide for protection of water quality, fish, and their habitat, and other elements of the environment.

More than one permit from more than one agency may be required for work in streams or fish-bearing waters. The most common restriction has to do with timing. Normally, these restrictions will require that work be done during low flow conditions to minimize impacts to fish and water quality. (*Ref Roadside Manual*, p. 440-11.)

Additionally, when maintenance activities are carried out on tribal lands, environmental protection measures may be required by the tribal government or the U.S. Environmental Protection Agency (USEPA). Local governments also have authority to issue permits regulating activities in their jurisdiction. It is the responsibility of the regional maintenance environmental coordinator to obtain permits when necessary.

(1) Federal

National Environmental Policy Act (NEPA), 42 USC <u>4321</u>; 40 CFR Part 1500 (CEQ); 23 CFR 771 (FHWA). See **Chapter 410** and **Chapter 411**.

Clean Water Act, Section 404 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects. See Section 520.02.

Rivers and Harbors Act of 1899, Section 10 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects. See Section 520.03.

Endangered Species Act (ESA) compliance – See Section 436.02, Section 520.08, and Regional Road Maintenance Endangered Species Act Program Guidelines.

(2) Tribal

See Chapter 530 for permits and approvals that may be needed on tribal land or for activities affecting usual and accustomed fishing and hunting rights guaranteed by treaty.

(3) State

State Environmental Policy Act (SEPA), RCW 43.21C and WAC 197-11. See Chapter 410 and Chapter 411.

Washington State Department of Natural Resources (DNR), Aquatic Lands Use Authorization (Aquatic Lease), RCW 79.90 through 79.92, and WAC 332-30. See Section 540.16

Coastal Zone Management Consistency Certification, Washington State Department of Ecology. See Section 540.03.

Hydraulic Project Approval (HPA), RCW 77.20 and WAC 220-110, administered by WDFW. A General HPA covers specific WSDOT maintenance activities, including removal of beaver dams; see Section 540.15.

NPDES <u>Construction</u> Stormwater Permit. See <u>Section 540.04</u> through <u>Section 540.08</u>.

Minimal Functional Standards for Solid Waste Handling, WAC 173-304, and Washington State Dangerous Waste Regulations, WAC 173-303. See Section 447.05.

(4) Local Governments

Critical/Sensitive Areas Ordinances adopted under the Washington State Growth Management Act, RCW 36.70A, WAC 173-14 through 173-28. See Section 550.04.

Shorelines Permit Programs adopted under the Washington State Shorelines Management Act, RCW 90.58 and WAC 173-14 through 173-28. See Section 550.02.

Clearing and grading permits. See Section 550.05.

710.05 Non-Road Project Requirements

Environmental procedures for ferry-related maintenance activities are covered under the Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards (February 13, 1998). See Section 710.03 for a list of ferry maintenance activities covered under this agreement and Section 540.08 and Section 540.15 for a discussion of any General (programmatic) NPDES Permit and Hydraulic Project Approval requirements applicable to ferry maintenance activities.

710.06 Exhibits

None.

720.01	Introduction
720.02	WSDOT Manuals
720.03	General Practices
720.04	Activity Groups
720.05	Exhibits

Key to Icon



Web site.*

720.01 Introduction

This section summarizes guidance in the *Regional Road Maintenance Endangered*Species Act Program Guidelines and other WSDOT manuals. As in the Guidelines, the section is organized by Program Elements (10) and Maintenance Categories (15).

The Guidelines define BMPs that are expected to be used when performing maintenance activities. A range of BMP options are provided to achieve prescribed outcomes. This allows the crew supervisors the flexibility to select or modify BMPs for each site based on conditions in the field as long as they meet BMP outcomes that focus on avoiding and minimizing erosion/sedimentation, containing pollutants, and avoiding and minimizing impacts to habitat.

720.02 WSDOT Manuals

Technical guidance is summarized by reference to the WSDOT manuals described below. Refer to these documents for details. Most manuals can be accessed on line from the WSDOT Engineering Publications on-line library:



(1) Regional Road Maintenance Endangered Species Act Program Guidelines

These *Guidelines* defines general and specific practices WSDOT will utilize to avoid adverse impacts to the aquatic environment from maintenance activities. Whenever avoidance is not attainable, impacts will be minimized. The *Guidelines* were developed in compliance with the Endangered Species Act, Section 4(d) Limitation #10 Roadside Maintenance. The document also has been reviewed for consistency with Hydraulic Permit Approval (HPA) requirements by the National Marine Fisheries Service (NMFS) and Washington State Department of Fish and Wildlife (WDFW), and for consistency with state water quality standards by Washington State Department of Ecology (Ecology).

The *Guidelines* are online at WSDOT's web site:

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

http://www.wsdot.wa.gov/maintenance/roadside/esa.htm

(2) Maintenance Manual (M 51-01)

This manual covers procedures for highway maintenance. In several chapters maintenance activities have environmental implications: emergency operations (hazardous materials spills), drainage (aquatic habitat, water quality, wetlands, shorelines), bridge repair, roadside maintenance (integrated vegetation management), snow and ice control, and procuring materials from quarries or pits. References in this section are to the March 2002 edition.

(3) Maintenance Accountability Process (MAP)

This document is the primary tool used by the Maintenance Office for evaluating program service delivery and identifying budget investment choices. For information on the Maintenance Accountability Process, see:

http://www.wsdot.wa.gov/maintenance/mgmt/accountability.htm

(4) Roadside Manual (M 25-30)

This manual provides consistent guidelines for roadside management, and supplements guidelines in WSDOT's Roadside Classification Plan (M 25-31). It is organized around a framework of roadside functions: operational, environmental, visual, and auxiliary. Environmental functions include water quality preservation, protection and improvement; stormwater detention and retention, wetland and sensitive area protection, noxious weed control, noise control, habitat protection and connectivity, air quality improvement, and erosion control. Sections of the manual offer resources on designated and sensitive areas, wetlands, water quality, wildlife, and noise abatement.



http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library. Find Roadside Manual.

Or by direct link:



http://www.wsdot.wa.gov/fasc/engineeringpublications/Manuals/ RoadsideManual.pdf

(5) Design Manual (M 22-01)

This manual is the basic reference for highway design.



http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library. Find Design Manual, then select a version.

Or by direct link:



http://www.wsdot.wa.gov/fasc/EngineeringPublications/library.htm

720.03 **Program Elements**

The program elements are fully described in the Regional Road Maintenance ESA Program Guidelines (Guidelines).

(1) Regional Forum

A Regional Forum has been created from participating agencies. The Regional Forum provides a regional meeting for program discussion, coordination, and adaptive management. In terms of contributing to conservation, the Regional Forum provides a process whereby, as new information is gathered in each individual agency, it can be shared with other agencies across the State. Sharing information on successful BMP applications in the field, together with scientific research, creates a potential for each agency to improve its contribution to conservation over time. Additionally, if a problem with program implementation occurs in one jurisdiction, this information sharing prevents repeated problems.

(2) Program Review and Approval

The program review and approval process will require that each agency participating in the Regional Program comply with the ten program elements. The Washington State Department of Transportation (WSDOT) Highways and Local Programs (H&LP), Headquarters or the Regional Forum, will review each agency's Part 3 Application to determine whether or not all program elements are included. The goal of the Program Review and Approval process is to establish consistency across Washington so that conservation measures are achieved. The Services will issue approval for each agency to receive a take limit (NMFS) under Limit 10 (ii) of the 4(d) Rule, and/or a reduction or elimination of the prohibition on take of threatened species (USFWS).

(3) Training

Courses will include the topics of basic ESA, design, biological review, permit activities, maintenance BMPs, and monitoring BMP activities. The WSDOT Technology Transfer (T2) Center, University of Washington, or WSDOT Operations and Maintenance Program in conjunction with the Regional Forum, will develop a curriculum for training maintenance employees in the implementation of the Regional Program that may be taught by T2 instructors or other trainers. Thorough training on all elements of the Regional Program, at applicable levels of implementing agencies, provides consistency across the State so that conservation goals can be met.

For a list of WSDOT training courses and other training opportunities, see WSDOT's Environmental Services Office training web site at:



(4) Compliance Monitoring

The objective of compliance monitoring is to evaluate program implementation to accomplish Regional Program conservation goals consistently across the State. Compliance monitoring will take place at several levels: local agency supervisory staff, local agency permitting authorities, and state and federal permitting authorities evaluating BMPs for use and implementation. Each local agency will establish a formal compliance monitoring program for monitoring BMP outcomes and any monitoring that is part of various research projects.

(5) Scientific Research

Case studies in the field, as well as literature research done by others, are included in this program element. The scientific research element will serve to verify effectiveness of BMPs and update BMPs based on the latest technologies. Using information derived from scientific research, conservation opportunities can be maximized.

(6) Adaptive Management

The adaptive management philosophy will apply to all ten elements of the Regional Program. The training, research, biological data collection, and program monitoring elements are the basis for adaptive management. Adaptive management provides a means by which potential adverse impacts are avoided and minimized, and conservation opportunities maximized, as the Regional Program is implemented throughout the State of Washington.

(7) Emergency Response

This element provides a framework under which road maintenance organizations can operate during emergencies. This program element allows for necessary emergency response measures, while keeping the Services and regulatory agencies apprised.

(8) Biological Data Collection

This element includes habitat location information within the ROW and development of a process to train and alert staff where the *Guidelines* need to be applied.

(9) Biennial Reports

The Regional Forum will provide biennial (every 2 years) reports to the Services. Biennial Reports will include a review of the ten program elements, updates on research, recommended BMP changes, and recommended updates on each program element.

(10) Best Management Practices (BMPs) and Conservation Outcomes

Under the Regional Program, BMPs and desired conservation outcomes have been developed for road maintenance activities. The Regional Forum will annually review and update the BMPs. Local agencies and the Services will review the changes the Regional Forum recommends for adoption.

720.04 Maintenance Categories

The following Maintenance Categories are defined in the *Guidelines*. Within each category are descriptions of the road maintenance activities most commonly performed.

Category 1 - Roadway Surface

The roadway surface is part of the Right-of-Way (ROW) structure. The slope of the roadway surface routes water and sediments off the roadway to the shoulder, to an open drainage area or ditch, or enclosed drainage system. Thus, the slope of the

roadway surface is part of the water flow and sediment collection systems. The purpose of repair, replace, install, or maintain roadway surfaces include:

- Pothole and square cut patching
- Removing paved surfaces or roadway base
- Repairing roadway base
- Repaying
- Adding gravel or grading surfaces
- Dust control
- Extending pavement edge
- Paving graveled shoulder
- Crack sealing and overlay
- Chip seal
- Resurfacing
- Pavement marking and traffic channelization
- Traffic control features.

BMPs proposed for maintaining, repairing, installing, or replacing roadway surfaces are designed to achieve one or more of the following habitat goals:

- Protect watercourse, stream and/or water body
- Maximize opportunities for increased infiltration
- Reduce runoff (of dirt, debris, sediment, and petroleum products) from maintenance activity to contribute to restoration of water quality.

Categories 2 and 3 - Enclosed Drainage Systems and Cleaning of Enclosed Drainage Systems

The enclosed drainage system is part of the ROW structure that routes water and sediments from roadways and surface structures through water and sediment collection systems to outlet areas. Facilities can be located within the ROW, public property, separate tracts, easements, or on private property. Enclosed drainage systems, which are used for water quality and quantity treatment, are designed to accumulate sediments over time. Because of limited storage capacity, this sediment should be removed to maintain treatment effectiveness and environmental protection. The purpose of repair, replacement, installation, cleaning and maintenance tasks on enclosed drainage systems includes the following:

- Removing large quantities of sediment and debris from storm water before it enters watercourses or streams
- Ensuring the roadway drainage system removes, collects and conveys water from the ROW to permit the maximum use of the roadway
- Reducing damage to roadway structures
- Protecting abutting property from damage
- Restoring surface water drainage
- Ensuring structural integrity
- Vegetation management

BMPs proposed for maintaining, repairing, installing and replacing enclosed drainage systems are designed to achieve one or more of the following habitat goals:

- Protect watercourse, stream and/or water body
- Reduce worksite pollutants run off to restore or maintain water quality
- Control storage, delivery, and routing of surface and ground water to control volumes and velocities of storm water discharge by cleaning and maintaining system
- Reduce pollutant transport from system breaks by performing repairs.

Category 4 - Open Drainage Systems

Like the enclosed system, the open drainage system is part of the ROW structure that routes water and sediments from roadways and surface structures through water and sediment collection systems to outlet areas. Facilities can be located within the ROW, public property, separate tracts, easements, or on private property. Open drainage systems include storm water conveyance systems that were created entirely by artificial means, such as roadside ditches and storm or surface water run-off facilities. These structures are not watercourses, streams or wetlands. Maintenance tasks may involve the following activities:

- Cleaning
- Reshaping/re-grading
- Erosion control/bank stabilization of drainage system
- Vegetation management
- Removal of debris, trash, yard waste and sediment
- Repair of structures.

These tasks are performed on facilities, retention/detention facilities, swales, pollution control devices, manholes, catch basins, vaults, pipes, culverts, inlets/outlets, and ditches. The open drainage system allows sediment to separate and settle from the water flow, thus cleaning and removing large quantities of sediment out of the storm water system. Maintenance operations are performed when sediment, debris, or vegetation in a ditch impedes flows or storage of water and sediments to a point where safety or structural integrity of the roadway system is jeopardized.

BMPs proposed for maintaining, repairing, and cleaning open drainage systems are designed to achieve one or more of the following habitat goals:

- Protect downgrade habitat by removing sediment
- Protect water quality
- Reduce worksite pollutant runoff to watercourses, streams and/or water bodies
- Maintain or restore the storage, delivery, and routing of surface and ground water
- Control volumes and velocities of discharge by removing sediment loading from drainage systems
- Maintain or restore the storage area of sediment and other pollutants

- Remove sediment from system
- <u>Vegetation management</u>

Category 5 - Watercourses and Streams

Watercourses, rivers and/or streams refer to any portion of a channel, bed, bank, or bottom waterward of the ordinary high water line of the waters of the State. This definition includes areas in which fish may spawn, reside, or through which they may pass, and tributary waters with defined bed or banks, which influence the quality of fish habitat downstream. This definition includes watercourses that flow on an intermittent basis or that fluctuate in level during the year and applies to the entire bed of the watercourse whether or not the water is at peak level. This definition does **not** include irrigation ditches, canals, storm water runoff devices, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

Some roadside ditches and/or storm water facilities can be watercourses or streams. Proposed maintenance activities within waters of the State will be reviewed prior to work with the Washington State Department of Fish and Wildlife (WDFW) staff to achieve Hydraulic Project Approval (HPA) compliance.

Maintenance tasks for watercourses, rivers and/or streams involve the following activities:

- <u>Structural repair/replacement</u>
- Slope stabilization
- Sediment removal
- <u>Vegetation management</u>
- Debris removal
- Habitat maintenance/improvements, such as, fish ladders, weirs, and LWM.
- Access road maintenance

BMPs proposed for the maintenance of watercourses and streams are designed to achieve one or more of the following habitat goals:

- Protect habitat
- Protect water quality
- Reduce worksite pollutant runoff to watercourses, streams and/or water bodies
- Maintain or restore the storage, delivery, and routing of surface and ground water to control volumes and velocities of discharge by removing sediment loading from drainage system
- Remove sediment from system
- <u>Identify the number of chronic sediment deposit problem sites that require</u> frequent sediment removal.

Category 6 - Stream Crossings

The repair, maintenance, cleaning, installation, replacement or upgrade of pipes, arch pipes, box culverts, fish ladders, weirs, sediment pools, access roads, and bridges are conducted to prevent flooding or catastrophic road failure. Flooding

and road failures can occur from structures filled to capacity, blocked with sediment or debris, damaged or may be undersized. Maintenance within waters of the state will require HPA compliance.

BMPs proposed for maintaining stream crossings are designed to achieve one or more of the following habitat goals:

- Repair, replace, or maintain structure
- Protect habitat and watercourse or stream by, or while, performing maintenance
- Reduce worksite pollutant runoff
- Restore or maintain fish passage through structure
- Maintain or restore the storage, delivery, and routing of surface and ground water to control volumes and velocities of discharge by maintaining structure
- Reduce flooding.

In some cases, habitat restoration work is possible as part of a road maintenance activity. In many cases, this type of work is beyond the scope of routine maintenance activities, but might be done as a capital improvement project or a major restoration project. Whether done on a small scale as part of a maintenance activity, or on a more significant level as a capital improvement project, the following BMPs may apply where ROW is available and to the extent that design/habitat considerations allow:

- Remove artificial bank hardening and/or channel confining structures
- Enhance or add areas for spawning, migration, feeding or rearing habitat
- Create connections to off-channel habitat.

Category 7 - Gravel Shoulders

Maintenance activities on gravel shoulders are performed to ensure the shoulder functions as a filter for sediment, provides bio-filtration, and controls surface water runoff. Maintenance activities include removal of sediment, sod and debris from the shoulder, restore filtering ability; restore proper grade; improve drainage; vegetation control to maintain adequate site distances; and smoothing ruts.

BMPs proposed for maintaining gravel shoulders are designed to achieve one or more of the following habitat goals:

- Protect watercourse, streams, and other water bodies
- Restore or maintain water quality
- Control storage, delivery, and routing of surface and ground water
- Control volumes and velocities of storm water discharge by cleaning and maintaining shoulders, which allows for sheet flow and infiltration
- Reduce sediment transport by removing sediments before they enter watercourses and/or streams
- Maximize opportunities for increased infiltration and/or bio-filtration.

Category 8 - Street Surface Cleaning

Street surface cleaning activities are performed to provide a safe roadway surface. Sweeping reduces sediment loading of the drainage system, surface waters, watercourses, streams, and other water bodies. Water spray systems are used on sweepers to reduce dust. Pickup sweepers remove materials from the roadway.

BMPs proposed for street surface cleaning are designed to achieve one or more of the following habitat goals:

- Restore or preserve water quality
- Protect watercourses, streams and/or other water bodies by performing maintenance
- Reduce sediment transport and loading of drainage systems, watercourses or streams, or other water bodies
- Reduce sediment and pollutant transport and loading of drainage systems, watercourses, streams or other water bodies.

Category 9 - Bridge Maintenance

Bridge repair, replacement, installation and maintenance activities are performed to provide a safe roadway and to protect bridge infrastructure according to local, state and federal regulations. Maintenance activities include inspecting, testing, repairing, replacing, maintaining, painting, or resurfacing various components of the bridge. WDFW reviews and permits activities requiring an HPA prior to work activities.

BMPs proposed for bridge maintenance are designed to achieve one or more of the following habitat goals:

- Contribute to the restoration and/or enhancement of aquatic habitat (HPA)
- Control worksite pollutant runoff
- Maintain or restore fish passage through structure
- Maintain or restore water quality off bridge by maintaining drainage system
- Repair, replace or maintain structure
- Maintain habitat and water course or stream by performing maintenance
- Reduce flooding
- Preserve or restore watercourse or stream velocities impaired by blockages in the vicinity of bridge maintenance activity.

Category 10 - Snow and Ice Control

Snow and ice control activities are performed to provide a reasonably safe roadway surface. Sanding and plowing operations are considered to be work of such importance that they are classified as emergency operations and take precedence over all non-emergency work. Postevent cleanup is considered a continuation of the activity.

BMPs proposed for snow and ice control are designed to achieve one or more of the following habitat goals: maintain or restore water quality and protect aquatic habitat and riparian area.

Category 11 - Emergency Slide/Washout Repair

Slides and washouts are caused by the impact of heavy rainfall or freeze and thaw conditions on unstable and/or saturated soils. Slides and washouts may occur on the slope above or below roadways, private property, or sensitive areas. Slide or washout repair activities may include the following:

- Removal of slide/washout material from the ROW
- Backfilling or stabilizing slope
- Reestablishment of damaged roadway features
- Repairing and cleaning the drainage system
- Restoring access roads
- Re-vegetation
- Armoring with rock.

The initial response to emergencies relating to slide and washout repair is covered under Program Element 7, Emergency Response. After the emergency is stabilized, the repair work is covered under this maintenance category.

BMPs proposed for emergency slide/washout repairs are designed to achieve one or more of the following habitat goals:

- Reduce erosion/sedimentation to restore water quality
- Reduce sedimentation loading off-site
- Contribute to the restoration of aquatic habitat (HPA)
- Encourage re-vegetation to stabilize slope and provide riparian habitat near aquatic habitat
- Maintain or restore the storage, delivery, and routing of surface and ground water by restoring the damaged structure.

Category 12 - Concrete Surfaces

The removal and repair of damaged concrete roadways, sidewalks, driveways, and curb and gutter sections are performed to provide a safe roadway and pedestrian traffic infrastructure and to maintain adequate conveyance of surface water to drainage systems. Maintenance activities may also involve the installation of new concrete structures.

BMPs proposed for concrete maintenance activities are designed to achieve the following habitat goal:

- Reduce pollutant runoff to restore water quality.
- Reduce velocities and allowing sheet flow when possible.
- Reduce worksite runoff to watercourses, streams and/or water bodies
- Maintain or restore the storage, delivery, and routing of surface and ground water
- Maintain or restore the storage area of sediments and other pollutants
- Remove sediment from system
- Protect water quality

Category 13 - Sewer Systems

Sewer and storm systems are designed to efficiently collect and remove water from the ROW to permit the maximum use of the roadway, prevent damage to roadway structures, protect abutting property from damages, and restore surface water drainage in combined sewer/storm systems and manage vegetation. To maintain integrity of infrastructure and operational reliability the following systems are repaired, replaced, installed and maintained: treatment facilities; lift stations; pump stations; main lines; collection lines; trunk lines; interceptors; lake lines, access roads, associated ROWs and storage/detention facilities.

BMPs proposed for sewer system maintenance activities are designed to achieve one or more of the following habitat goals:

- Protect watercourses and/or streams
- Reduce worksite pollutants to restore or maintain water quality
- Control the storage, delivery, and routing of surface and ground water to control volumes and velocities of storm water discharge by repairing and maintaining sewer system
- Repairs reduce sediment transport from system breaks
- Maximize opportunities for increased infiltration or infiltration.

Category 14 - Water Systems

Water system maintenance is conducted to maintain the integrity of the infrastructure, collect, treat and distribute clean drinking water, provide additional service and components, maintain operational reliability, and protect health and safety issues. Maintenance activities are performed on the operating components of the water system facilities including but not limited to treatment plants, transmission mains, distribution lines, fire flow systems, reservoirs, tunnels and pump stations, meters, flushing, dewatering, services and associated ROWs or access roads.

BMPs proposed for water system maintenance activities are designed to achieve one or more of the following habitat goals:

- Protect watercourses and/or streams
- Reduce worksite pollutants to restore or maintain water quality
- Control the storage, delivery, and routing of surface and ground water to control volumes and velocities of storm water discharge by restoring surface after installation, repair or replacement of underground piping
- System maintenance and repairs reduce sediment transport from system breaks
- <u>Maximize opportunities for increased infiltration or bio-filtration where possible.</u>

Category 15 - Vegetation

Vegetation is part of the ROW structure. Vegetation maintenance will be conducted in all roadway categories including roadway surface, open and closed drainage, sediment containment, water courses and streams, stream crossings, shoulders, and utilities. The purpose of vegetation maintenance is to promote, maintain, sustain, manage, or encourage vegetation growth within the ROW to

comply with a variety of regulations and standards including public safety. Vegetation maintenance improves visibility, surface and subsurface drainage, fire and pollution control, and clear zone area.

BMPs proposed for maintaining vegetation are designed to achieve one or more of the following habitat goals:

- Improve drainage by reducing erosion
- Reduce the spread of noxious weeds and undesirable vegetation
- <u>Limit erosion</u>
- <u>Increase bio-filtration</u>
- Lower herbicide use
- Provide shading/reduce water temperature
- Provide habitat for macro invertebrates
- Provide LWM

720.05 Exhibits

None.

790.01 Introduction
 790.02 Implementing Environmental Commitments During Maintenance and Operations
 790.03 Exhibits

790.01 Introduction

As a project progresses through the Design and PS&E Phases (Part 4 and Part 5 of this Manual) many commitments in the form of mitigation plans and permit conditions are made to the various resource agencies to protect the environment, reduce social impacts and protect cultural and historic resources. Some of those commitments must be fulfilled during maintenance and operations.

Interagency agreements between WSDOT and resource agencies also include environmental commitments. Those applicable to maintenance and operations are summarized in Section 710.03 and discussed in Chapter 420 through Chapter 480. Appendix E includes an index of all WSDOT environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. Appendix E also includes a matrix and an accompanying narrative showing which agreements have provisions applicable to maintenance and operations.

In addition, some statutory requirements do not involve permits or approvals, but still apply to WSDOT construction; for example dangerous waste and underground storage tank requirements. See **Chapter 710** and **Chapter 720** for requirements applicable to maintenance and operations.

Some of those commitments are unique to a given project. Other requirements are Standard Operating Procedure for WSDOT and can be found in the Standard Specifications, WSDOT *Construction Manual* (M41-01) and *Right of Way Manual* (M 26-01).

790.02 Implementing Environmental Commitments During Maintenance and Operations

The guidance in this section is intended to ensure compliance with environmental commitments when potential problems occur within the right-of-way during maintenance fieldwork. It includes procedures for making sure there is a smooth handoff to Maintenance and Operations when a construction project is completed; promptly notifying the appropriate individuals if a potential problem arises; and coordinating appropriate response measures to prevent violations.

(1) Post-Project Construction Requirements

When a construction project has been completed, the Project Engineer (PE) should notify the Regional Environmental Manager (REM). The Regional Environmental Manager, in consultation with the PE, should then brief Regional Maintenance Superintendents and Maintenance Environmental Coordinators (RMEC) on any environmental permit conditions with post-construction

requirements and on all mitigation sites in the project area needing avoidance or protection. Perform this briefing according to Regional procedures.

(2) In-Water Work

Requirements for communication with the appropriate resource agencies are defined in the *Regional Road Maintenance Endangered Species Act Program Guidelines*. Specific notification from maintenance crews to the resource agencies is required in situations described below.

(a) In-Water Work

The Regional Maintenance Environmental Coordinator (RMEC) must be notified before beginning any work activity in or adjacent to sensitive or aquatic areas, including streams, wetlands, lakes, marine water or other water bodies. Any work in these areas may require some form of environmental review and/or notification, although in most cases formal permits are not be required. This is coordinated through the RMEC. If prior notification is not possible due to an emergency action, the Region's Environmental Office must be informed on the first business day following an emergency declaration.

(b) Emergency In-Water Work

The U.S. Army Corps of Engineers (Corps) and the Washington State Department of Fish and Wildlife (WDFW) require immediate notification for any emergency work in or affecting waters of the state. For emergency response work involving in-water work, Maintenance staff must immediately call the local Area Habitat Biologist with jurisdiction in the affected watershed. If the biologist cannot be reached, Maintenance staff must call the WDFW emergency hotline, 360-902-2537.

Maintenance staff should also contact Corps liaison for that region or fax work information to 206-764-6602 before proceeding with work. For emergency work outside normal working hours, contact Muffy Walker at 206-781-0469, or Tom Mueller at 206-842-0155. Work information should include location, nature, and method of work. Take photographs if possible. If a Corps permit is required, work may result in an after-the-fact permit, or initial corrective measures, which are processed as a violation.

The RMEC or Regional Environmental Office will make the additional notifications, required for in-water work, on the first business day following the response notification. Following notification, the Environmental Office will commence environmental permitting and endangered species impact assessment as required.

The initial emergency response work is to stabilize the affected area only, minimizing adverse environmental effects, and using BMPs to avoid further impact. The normal design, construction, and permit procedures are followed for permanent repairs, as necessary, after stabilizing the initial emergency condition.

(3) ESA/General Permit Reporting Requirements and Violation Notification Process

During the course of maintenance work, crews are required to report work that is conducted within priority sensitive areas on the Personal Data Assistant (PDA) ESA Compliance checklist. (Consult the Roadside-Sensitive Management Area Atlas, fish sticks, or pavement markings.) For instructions on completing this checklist, see *Best Management Practices Field Guide for ESA Section 4(d) Habitat Protection* (March 2004). The checklist documents WSDOT's compliance with ESA Section 4(d) "take" limits and General Permits.

Permit compliance, maintenance category, BMP, and other reports are developed and generated on request. Additional BMPs utilized in the field, along with associated comments, are evaluated and discussed at the statewide RMEC meetings. Any recommended improvements are forwarded to the Regional Forum for consideration.

Figure 790-1 illustrates the maintenance violation notification process. Roles and responsibilities are summarized below:

On-site Maintenance Personnel

• Notify the Maintenance Superintendent.

Maintenance Superintendent

Notifies the Regional Maintenance Engineer/Manager and the RMEC.

RMEC

- Serves as the contact lead.
- Immediately notifies the appropriate local, state, and federal agencies, Regional Environmental Manager, and the Headquarters Maintenance and Operations Water Quality Policy Manager.
- Identifies and obtains appropriate permits or permit revisions.
- Documents all actions, conversations and activities. Communicates issues and sends documentation to the appropriate resource agencies.

Headquarters Maintenance and Operations Water Quality Policy Manager

 Notifies the Headquarters Maintenance and Operations Environmental Services Manager.

Headquarters Maintenance and Operations Environmental Services Manager

- Notifies the Environmental Services Office Compliance Branch Manager.
- Determines if the violation is significant to warrant notification to the State Maintenance Engineer.

Environmental Service Office Compliance Branch Manager

 Documents the details of the notification process and problem resolution in a central data base used to report, as may be required by an Environmental Management System, on agency compliance with environmental regulations. • <u>Determines if the violation is significant enough to warrant notification to the Environmental Services Office (ESO) Director.</u>

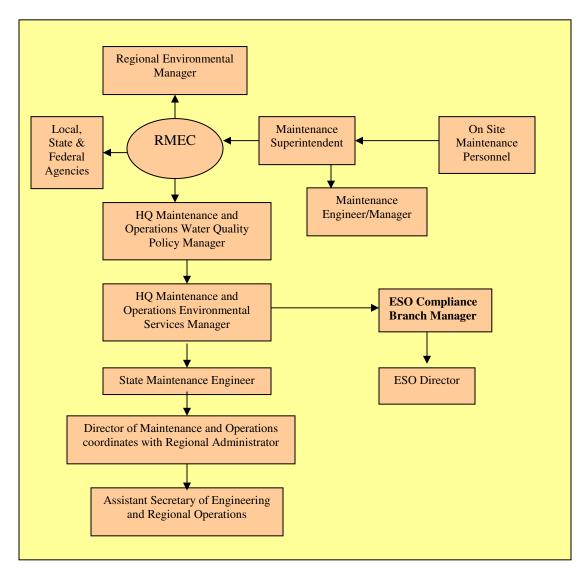
State Maintenance Engineer (if notified)

• Notifies the Director of Maintenance and Operations

Director of Maintenance and Operations:

 Coordinates with the Regional Administrator to contact the Assistant Secretary of Engineering and Regional Operations and advise on the situation, and provide updates as needed on the situation.

Figure 790-1: Maintenance Violation Notification Process



790.03 Exhibits

None.

800.01	Introduction
800.02	Process Overview
800.03	Organization of Part 8
800.04	Abbreviations and Acronyms
800.05	Glossary
800.06	Exhibits

800.01 Introduction

Part 8 covers the Property Management phase of the WSDOT Transportation Decision-Making Process. Property Management deals with such things as utilities accommodation and disposal of surplus real property.

800.02 Process Overview

Figure 800-1 shows how Property Management relates to the preceding phase in WSDOT's Transportation Decision-Making Process.

Figure 800-1: Property Management Phase

EPM Part 7	EPM I	Part 8
Maintenance and Operations Phase	Property Management Phase	
	Utilities Accommodation	Surplus Real Property Disposal

800.03 Organization of Part 8

Part 8 has three chapters. Chapter 810 deals with policies and procedures related to utilities accommodation, which is the responsibility of the Region Utilities Engineer. These procedures are set out in the *Utilities Manual* (M 22-87). Chapter 820 deals with policies and procedures related to disposal of surplus real property, which is the responsibility of the Region Real Estate Services Manager. These procedures are set out in Chapter 11 of the *Right of Way Manual* (M 26-01). Chapter 890 deals with implementing environmental commitments during property management.

800.04 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 8** are listed below. Others are found in the general list in **Appendix A**.

AASHTO American Association of State Highway Transportation Officials

RES Real Estate Services

WUCC Washington Utility Coordinating Council

800.05 Glossary

Terms used in **Part 8** are listed below. See **Appendix B** for a general glossary of terms used in the EPM.

Utility – Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, cable television, electric power, light, heat, gas, oil, crude products, water, steam, waste, stormwater not connected with highway drainage, and other similar commodities, including any fire or police signal systems, street lighting systems, and traffic control system interties, which directly or indirectly serve the public. (WSDOT *Utilities Manual* (M 22-87), Chapter 2.)

800.04 Exhibits

None.

810.01	Introduction
810.02	Applicable Statutes and Regulations
810.03	Policy Guidance
810.04	Interagency Agreements
810.05	Technical Guidance
810.06	Permits
810.07	Exhibits

Key to Icons



Web site.*

810.01 Introduction

Utilities accommodation is about allowing utilities to use WSDOT highway right-of-way when such use and occupancy is consistent with federal, state, and local laws and regulations and does not interfere with the primary purpose of the highway. This chapter presents the statutes and regulations, policy guidance, interagency agreements, technical guidance, and permits applicable to utilities accommodation.

810.02 Applicable Statutes and Regulations

The following statutes and regulations are applicable to utilities accommodation. See **Appendix D** for a list of statutes referenced in the EPM.

(1) CFR Title 23 – Accommodating Utility Facilities

Title 23 of the Code of Federal Regulations implements and carries out the provisions of federal law relating to the administration of federal aid for highways. Subpart A of Part 645 of 23 CFR prescribes the policies, procedures, and reimbursement provisions for the adjustment and relocation of utility facilities on federally aided projects, and Subpart B prescribes policies and procedures for accommodating utility facilities and private lines on the right-of-way of federally aided projects. (For more information on utility relocation and reimbursement, see **Chapter 470**.) The text of 23 CFR 645 can be found online at:

http://www.access.gpo.gov/nara/cfr/waisidx_01/23cfr645_01.html

(2) RCW 47.44 – Franchises on State Highways

Under this state law, WSDOT may grant franchises to use any state highway for the construction and maintenance of water, flume, gas, oil, or coal pipes; telephone, telegraph, and power lines and conduits; trams or railways; and any structures or facilities which are part of an urban public transportation system

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

owned or operated by a municipal corporation, other state agency or department, and any other such facilities. RCW 47.44 is online at:

http://www.leg.wa.gov/

Click on Laws and Agency Rules, then RCW, then Title 47, then 47.44.

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=47.44

(3) WAC 468.34 – Utility Franchises and Permits

This section of the Washington Administrative Code relating to WSDOT establishes procedures related to granting utility permits and franchises on WSDOT rights-of-way.

http://www.leg.wa.gov/

Click on Laws and Agency Rules, then WAC, then Title 468, then 468.34.

Or by direct link:

http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapter=468-34

810.03 Policy Guidance

To assist those involved in implementing CFR Title 23, FHWA has published a program guide, *Utility Relocation and Accommodation on Federal Aid Projects*. (For more information on utility relocation and reimbursement, see **Chapter 470**.) The program guide is available on line at:



WSDOT's *Utilities Accommodation Policy* (M 22-86) was established in cooperation with the utility industry. It follows AASHTO policy guidelines on accommodating utilities within highway and freeway rights-of-way, and is in compliance with state laws and regulations governing the accommodation of utility facilities and with federal aid policies and procedures. Its objective is to prescribe the means by which utility installations, when located in a manner not interfering with the free and safe flow of traffic, or otherwise impairing the highway of its visual quality, may be accommodated within state highway rights-of-way. The policy is online at:

http://www.wsdot.wa.gov/fasc/EngineeringPublications/manuals/Final%20UAP.pdf

810.04 Interagency Agreements

WSDOT has a Memorandum of Understanding with the U.S. Forest Service (USFS), relating to highways over national forest lands. The MOU identifies procedures for WSDOT and USFS to follow in allowing utilities within a highway right-of-way that crosses the National Forest boundary. The MOU is online via WSDOT's Environmental Services Office web site:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

A Memorandum of Understanding between WSDOT and the Washington Utility Coordination Council (WUCC) related to Scenic Classification for Utilities Accommodation on State Highway Rights of Way establishes the continued operation and upgrading of the scenic classification system as described in WAC 468-34-330. This MOU is part of the WSDOT *Utilities Accommodation Policy* (M-22-86) noted in Section 810.03.

810.05 Technical Guidance

(1) WSDOT Utilities Manual

WSDOT's *Utilities Manual* (M 22-87) describes general practices, policies, and procedures with respect to agreements, permits, and franchises between WSDOT and other entities, including those using WSDOT's right-of-way and those affected by WSDOT projects. Chapter 2 gives specific guidance for utility agreements.

The *Utilities Manual* includes detailed procedures and samples for preparing preliminary engineering agreements and construction agreements. The *Utilities Manual* is available online via WSDOT's home page:

http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library, then Utilities Manual.

Or by direct link:

http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/UtilitiesManual.pdf

The manual also includes information on approval authority, utility property rights, authorization to proceed, extra work, administrative and supervisory responsibility, inspection and records, and checklists for utility contracts and regional review.

For help with utility easements on WSDOT right-of-way, contact the WSDOT Headquarters Real Estate Services Office at 360-705-7237.

(2) WSDOT Design Manual

In Section 1410, Right-of-Way Considerations, WSDOT's *Design Manual* (M 22-01) describes the Region's responsibility to ascertain ownership of all utilities and arrange for necessary adjustment, including relocation of portions of the utility if necessary. Provisions for relocation or adjustment are included in the PS&E plans when such items are normal construction items and WSDOT is obligated for moving expenses, or when the utility requests that relocation be performed by WSDOT, and the <u>Director of Environmental and Engineering Programs or Region Administrator</u> has approved the request. Readjustment may require WSDOT to purchase substitute rights-of-way or easements for eventual transfer to the utility. Such right-of-way or easements must be shown on the ROW plans with the same engineering detail as for highway right-of-way. The *Design Manual* is available online via WSDOT's home page:

http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library, then select a Design Manual.

Or by direct link:

http://www.wsdot.wa.gov/fasc/EngineeringPublications/library.htm

810.06 **Permits**

For highways crossing state or federally owned land, utility easements may be

(1) Federal Land

See Section 520.13 for information on obtaining easements from the USFS, BLM, or NPS.

(2) State Land

See Section 540.17 for information on obtaining easements from WDNR.

810.07 **Exhibits**

None.

820.01	Introduction
820.02	Environmental Considerations in Surplus Real Property Disposal
820.03	Non-Road Project Requirements
820.04	Exhibits

Key to Icons



Web site.*

820.01 Introduction

This chapter reviews the environmental issues to be addressed when WSDOT is considering disposal of real property. Procedures are given in the *Right of Way Manual* (M 26-01), Chapter 11, Property Management.

WSDOT may determine that a real property owned and under the jurisdiction of WSDOT is no longer required for transportation purposes. If it is in the public interest, WSDOT may dispose of the property by sale or exchange to entities listed in the *Right of Way Manual*, or as detailed in RCW 47.12.063.

Region Real Estate Services (RES) offices periodically review the properties they manage and determine if any should be declared surplus by preparing and circulating a disposal review package through various disciplines of WSDOT, including the Region environmental staff. The Region environmental staff review the property for consideration of the environmental issues listed in Section 820.02. If the Region review results in a recommendation to dispose of the property, the Region RES office submits the disposal package to the Headquarters Real Estate Services Office. The package is then routed to the Environmental Services Office (ESO) and other Headquarters Offices for review, approval, and comments.

820.02 Environmental Considerations in Surplus Real Property Disposal

The Regional Office review of property considered for disposal includes completion of an Environmental Checklist (Exhibit 820-1). Property is not appropriate for disposal if:

- It is suitable for retention to restore, preserve, or improve the scenic beauty adjacent to the highway. See Chapter 459 for background on scenic quality.
- It is suitable for inclusion in WSDOT's wetlands inventory. See Chapter 437 for background on wetland requirements.
- It is needed for a park and ride lot, flyer stop, or similar facility to accommodate high occupancy vehicles.

^{*} Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

 Hazardous material is present on the site or any necessary cleanup has not been completed. See Chapter 447 for background on hazardous material requirements.

If any of these environmental uses for the property become evident during the regional office review, Headquarters does not become involved. If the property is not suitable for these uses and the Region recommends disposal, the Environmental Checklist and other documents listed in the *Right of Way Manual*, Chapter 11, are submitted to Headquarters by Real Estate Services.

(1) Disposal of Pit Sites

If the property to be disposed of is or was a pit site, the following additional documentation needs to be included in the disposal review package:

- Pit Evaluation Report (DOT Form 350-023)
- Reclamation Plan
- Hazardous Materials Assessment and Remediation Reports. Any suspected hazardous materials on WSDOT property should be reported to the Area Maintenance Superintendent (inside the operating right of way), Region Real Estate Services Manager (outside the operating right of way), and/or Capital Facilities Manager. Areas of responsibility may overlap, but these managers maintain close lines of communications and will make sure the ESO and Attorney General's office are consulted for assessment, remediation, and determination of liability. See Section 447.05 for background technical guidance.

(2) Historic Bridges – Programmatic Agreement

The July 2000 Programmatic Agreement between WSDOT, the State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation, regarding implementation of Section 106 of the Historic Preservation Act, includes a provision related to disposal of historic bridges. The provision states:

"WSDOT shall consult with SHPO to market appropriate bridges. 'Category 2 bridges' is a classification used only in the 1980 Historic Bridge Inventory to represent bridges constructed prior to 1940 that were noteworthy but not National Register eligible. In the event the Category 2 Bridges cannot be sold, WSDOT agrees to take large format (4X5 inch or larger) black and white archivally processed photographs of these bridges before they are demolished or rehabilitated, and provide a copy of these photographs to SHPO." The agreement is online via the ESO web site:

http://www.wsdot.wa.gov/environment/compliance/agreements.htm

820.03 Non-Road Project Requirements

Procedural requirements for property used by ferry, aviation, and rail facilities are the same as described above for highways.

820.04 Exhibits

Exhibit 820-1 – Environmental Checklist for Surplus Real Property Disposal.



Washington State Environment of Transportation Surplus Real Property Disposal

I.C. Number	Project		Date
Type of Review □ Field □ Office		/Stock Piles ndeveloped Roadside	□ Other
3. Describe existing vegetation at the site (including type and size of trees if known)			
4. Describe the topography of the site (flat, gently or steeply sloping, hummocky, etc.)			
5. Is surface water present on or near the What type (River, lake, pond, etc.)? How close?	e property? Yes No		
Is there wetland on or adjacent to this Describe	site? ☐ Yes ☐ No	□ Not Sure	
7. Does it appear that the site holds surfa Describe	ace water at any time during the year?	□ Yes □ No)
Does the site have potential as a future Describe	e wetland mitigation site? ☐ Ye	es □ No	
Is there evidence of potential hazardo Describe	us materials (fuel tanks, dump sites, asphal	t waste, etc.)?	□ Yes □ No
Could this site be used for future storr Describe	nwater treatment or storage needs? \[\textstyle \text{Ye} \]	es □ No	□ N/A
11. Could this site have potential for reduc	sing or maintaining reduced traffic noise leve	els? ☐ Yes	□ No
Recommendation and Review			
Do You Recommend Disposal? ☐ Yes Explain ————————————————————————————————————			
□ No Explain			
□ See Attached			
Recommendation By		Date	
		D .	
Specialty Review By		Date	,
Specialty Review By		Date	
Title		<u></u>	
DOT Form 22.015 FF 9/97			

890.01	Introduction
890.02	Accommodation of Utilities
890.03	Disposal of Surplus Property
890.04	Exhibits

890.01 Introduction

This chapter reviews actions necessary to ensure that environmental commitments are addressed in the accommodation of utilities within WSDOT right-of-way and the disposal of surplus real property.

890.02 Accommodation of Utilities

There are two important aspects of ensuring that utility work done in WSDOT's right-of-way fulfills our environmental commitments. First, it is important that any work done in the right-of-way must comply with the requirements listed in **Part 4** and **Part 5** of this manual. Most work in the right-of-way will not trigger those requirements. However, where applicable, the utility must use appropriate BMPs to protect water quality and ESA habitats. The utility is responsible for obtaining and complying with any required permits for the work.

Second, WSDOT makes some commitments, such as wetland mitigation, that continue in perpetuity. Utility work cannot disturb those areas without prior approval from WSDOT and the resource agency to which the commitment was made. Contact regional environmental staff for the location of such sites.

890.03 Disposal of Surplus Property

Environmental requirements for the disposal of surplus property are found in **Chapter 820**. Normally properties for which WSDOT has made commitments (such as mitigation sites) are not sold.

890.04 Exhibits

None.

Appendix A

Abbreviations and Acronyms

401 Certification Clean Water Act Section 401, Water Quality Certification

AASHTO American Association of State Highway Transportation Officials

ACHP Advisory Council on Historic Preservation

ADA Americans with Disabilities Act

AKART All known, available, and reasonable methods of prevention, control, and treatment

AST Aboveground Storage Tank

ATMS WSDOT's Automated Training Management System

BA Biological Assessment
BE Biological Evaluation
BFE Base Flood Evaluation

BLM Bureau of Land Management (Federal)

BMP Best Management Practice

BO Biological Opinion

BPJ Best Professional Judgment

BTEX Benzene, toluene, ethylbenzene, and xylenes

CAA Clean Air Act (Federal)
CAAA Clean Air Act Amendments

CAFM Computer Aided Facility Management

CAO Critical Areas Ordinance

CAPP County Arterial Preservation Program
CARA Critical Aquifer Recharge Area
CAWA Clean Air Washington Act
CBRA Coastal Barrier Resources Act

CE Categorical Exclusion (NEPA) or Categorical Exemption (SEPA)

CEQ Council of Environmental Quality (federal)

CFP Capital Facilities Plan
CFR Code of Federal Regulations

cfsmaf cubic feet per second mean annual flow

CIA Community Impact Assessment

CIPP Capital Improvement and Preservation Program

CMAQ Congestion Mitigation and Air Quality Improvement Program

CMZ Channel Migration Zone

CO Carbon Monoxide

Corps U.S. Army Corps of Engineers

CRA Cost Risk Assessment

CRAB County Road Administration Board

CRS Cultural Resource Specialist
CSS Context Sensitive Solutions

CTED State of Washington Department of Community, Trade and Economic Development

CWA Clean Water Act

CZM Coastal Zone Management

CZMA Coastal Zone Management Act (Federal)

dB decibel

dBA A-weighted decibels

DCE Documented Categorical Exclusion (NEPA)

DEHP Di(2-ethylhexyl) phthalate

DEIS Draft Environmental Impact Statement

DN Decision Notice (United States Forest Service)
DNR Washington State Department of Natural Resources

DNS Determination of Non-Significance (SEPA)

DOA U.S. Department of Agriculture

DOH Washington Department of Health

DOI United States Department of Interior

DS Determination of Significance (SEPA)

DSHS Washington Dept. of Social and Health Services

DSI Detailed Site Investigation
EA Environmental Assessment

EAP Environmental Assessment Program

EAP Emergency Action Plan, appendix to SPCC Plan

EBASE Estimate and Bid Analysis System

ECAP Environmental Compliance Assurance Procedure

Ecology Washington State Department of Ecology ECS Environmental Classification Summary

EDNA Environmental Designation for Noise Abatement

EFH Essential Fish Habitat

EIS Environmental Impact Statement

EJ Environmental Justice
EO Executive Order

EPF Essential Public Facilities

ERS Environmental Review Summary
ESA Endangered Species Act (Federal)
ESO Environmental Services Office
ESU Evolutionarily Significant Unit
FAA Federal Aviation Administration
FACA Federal Action Community Act
FAPG Federal Aid Policy Guide

FCAAP Flood Control Assistance Account Program
FEIS Final Environmental Impact Statement
FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration FIRM Flood Insurance Rate Map

FMP Fishery Management Plan

FONSI Finding of No Significant Impact (NEPA)
FPA/N Forest Practices Application/Notification

FPPA Farmland Protection Policy Act
FRA Federal Railroad Administration
FTA Federal Transit Administration

FWCA Fish and Wildlife Coordination Act (Federal)

GHPA General Hydraulic Project Approval
GIS Geographic Information System
GMA Growth Management Act (State)

gpd gallons per day

HAZWOPER Hazardous Waste Operations and Emergency Response

HC Hydrocarbons

HGM Hydrogeomorphic Model
HOV High Occupancy Vehicle
HPA Hydraulic Project Approval
HSP Highway System Plan

HSS Highways of Statewide Significance

IA Implementing Agreement
IDT Interdisciplinary Team
ISA Initial Site Assessment

ISTEA Intermodal Surface Transportation Efficiency Act of 1991

JARPA Joint Aquatic Resources Permit Application

 $\begin{array}{ccc} LA & Landscape \ Architect \\ LAG & Local \ Agency \ Guidelines \\ L_{dn} & Day-night \ sound \ level \\ LEP & Limited \ English \ Proficiency \\ L_{eq} & Equivalent \ sound \ level \end{array}$

 $L_{eq(24)}$ Equivalent sound level for a 24-hour period

LOP Letter of Permission
LOS Level of Service

LWCFA Land and Water Conservation Fund Act (Federal)

MAP Maintenance Accountability Program

MDNS Mitigated Determination of Non-Significance (SEPA)

MHHW Mean Higher High Water
MOA Memorandum of Agreement
MOU Memorandum of Understanding
MPO Metropolitan Planning Organization

MSA Magnuson-Stevens Act

MSAT Mobile Source Air Toxic emission

MTCA Model Toxics Control Act

NAAQS National Ambient Air Quality Standards

NAC Noise Abatement Criteria

NAT Notice of Action Taken (SEPA)

NEPA National Environmental Policy Act

NF National Forest

NFIP National Flood Insurance Program NFMA National Forest Management Act

NFP Northwest Forest Plan

NMFS National Marine Fisheries Service (Dept. of Commerce) NOAA National Oceanic and Atmospheric Administration

NOAA Fisheries National Oceanic and Atmospheric Administration (National Marine Fisheries Service)

NOI Notice of Intent (to apply for a Corps/NPDES General Permit)

NO_x Nitrogen Oxides

NPDES National Pollution Discharge Elimination System

NPS National Park Service

NRCS Natural Resources Conservation Service (U.S. Dept. of Agriculture)

NWP Nationwide Permit (Corps)

O₃ Ozone

OAHP Office of Archaeology and Historic Preservation (State)

OHWM Ordinary High Water Mark or Line

OSS On-site Sewer

PATS Priority Array Tracking System
PBA Programmatic Biological Assessment

PDA Personal Data Assistant
PE Project Engineer

PFMC Pacific Fishery Management Council

PHS Priority Habitats & Species

 PM_{10} Respirable or fine particulate matter, smaller than 10 micrometers in diameter $PM_{2.5}$ Respirable or fine particulate matter, smaller than 2.5 micrometers in diameter

PPM Parts per million

PS&E Plans, Specifications, and Estimates
PSD Prevention of Significant Deterioration

PSRC Puget Sound Regional Council

RAP Rural Arterial Program

RCRA Resource Conservation and Recovery Act

RCW Revised Code of Washington RDP Route Development Plan

REC Regional Environmental Coordinator
REM Regional Environmental Manager

RES Real Estate Services

RMEC Regional Maintenance Environmental Coordinator

ROD Record of Decision (NEPA)

ROW Right-of-Way

RPA Reasonable and Prudent Alternative

RPZ Runway Protection Zone

RRMP Regional Road Maintenance Program

RTPO Regional Transportation Planning Organization

SAC Signatory Agency Committee

SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

SAO Sensitive Areas Ordinance

SDWA Safe Drinking Water Act (Federal)
SEPA State Environmental Policy Act

SFTA Strategic Freight Transportation Analysis

SHPO State Historic Preservation Officer

SIC Standard Industrial Code
SIP State Implementation Plan

SMA Shoreline Management Act (State)
SMP Shoreline Management Program

SO₂ Sulfur Dioxide

SOV Single Occupancy Vehicle

SPCC Spill Prevention, Control, and Countermeasures

SSA Sole Source Aquifer SSP Stormwater Site Plan STB Surface Transportation Board

STIP Statewide Transportation Improvement Program

STMs Short-term Water Quality Modifications
SWAP Source Water Assessment and Protection

SWDP State Waste Discharge Permit

SWPPP Stormwater Pollution Prevention Plan
TCLP Toxicity Characteristic Leaching Procedure

TCM Transportation Control Measure
TCP Traditional Cultural Properties
TDM Transportation Demand Management

TEA-21 Transportation Equity Act for the 21st Century (PL 105-178), as amended by the TEA-21 Restoration Act of

July 22, 1998

TESC Temporary Erosion and Sediment Control

TFW Timber, Fish, & Wildlife

THPO Tribal Historic Preservation Officer
TIP Transportation Improvement Program

Title VI Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1984.

TMA Transportation Management Agency

TMDL Total Maximum Daily Load
TSP Total Suspended Particulates

U&A Usual and Accustomed Tribal fishing areas

UIC Underground Injection Control

USC United States Code

USCG United States Coast Guard

USDA United States Department of Agriculture
USDOJ United States Department of Justice

USEPA United States Environmental Protection Agency

USFS United States Forest Service

USFWS United States Fish & Wildlife Service (Dept. of Interior)

UST Underground Storage Tank
WAC Washington Administration Code
WAD Dangerous Waste Identification Number

WDFW Washington State Department of Fish and Wildlife

WDNR Washington State Department of Natural Resources
WISHA Washington Industrial Safety and Health Act

WNHP Washington Natural Heritage Program

WPA Wellhead Protection Area

WPCA Water Pollution Control Act (Federal)
WRIA Water Resource Inventory Area

WSF Washington State Ferries

WSPI Wetland Strategic Plan Implementation
WTP Washington Transportation Plan

WUCC Washington Utility Coordinating Council

Appendix B Glossary

For a web link to *Terms of Environment: Glossary, Abbreviations, and Acronyms*, which defines in non-technical language the more commonly used environmental terms appearing in EPA publications, please see:



http://www.epa.gov/OCEPAterms/intro.htm

Click on the first letter of the word/s you want to look up under terms, then find the word/s.

A

Abatement – Reduction in degree or intensity.

Adverse Effect – Occurs when an effect on an historic property diminishes the integrity of the property's aspects of integrity (see below). See also **Determination of Effect**. [Criteria of adverse Effect: 36 CFR 800.9(b).]

Adverse Impacts – Determined by those individuals potentially impacted by the Action through demographic analysis and early public involvement. Adverse impacts, (as defined by USDOT) and as applied to environmental justice, "may include, but are not limited to: air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and service; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organization; increased traffic congestion; isolation, exclusion or separation of minority or low-income individuals from the broader community; and the denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities." Individuals potentially affected by the project should be identified through demographic analysis and targeted for early public involvement.

Advisory Council on Historic Preservation – An independent federal agency, established under the NHPA, which: (1) advises the President and Congress on matters of historic preservation; (2) carries out Section 106 reviews; and 3) provides technical assistance in historic preservation actions.

Affect (Verb) – Action that may change the character of an historic property.

Air Study (or Air Quality Technical Report) – A quantitative evaluation for dispersion of carbon monoxide or qualitative evaluation for PM_{10} of pollutant emissions designed to address emissions from the operation of the built project. This evaluation should also include discussion of construction phase emissions such as fugitive dust, odors, and asbestos if applicable.

Anadromous Fish - Species that hatch in freshwater, mature in saltwater, and return to freshwater to spawn.

Approval – General term referring to any document other than a permit that needs a signature by someone in authority at the agency having statutory jurisdiction over that activity. The document may be called an approval, certification, concurrence, easement, or license, all of which represent an agency saying, "Yes we authorize you to conduct this activity as long as you do it in this manner." An approval may specify conditions under which the activity is approved.

Aquifer Recharge Area – Area which has a critical replenishing effect on aquifers used for potable water.

Area of Potential Effects (**APE**) – The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. APE should be defined before historic properties are identified. APE is not defined on the basis of land ownership, and should be determined based upon potential direct *and* indirect effects. [36 CFR 800.2(c).]

Aspects of Integrity – The seven (7) physical features of historic properties as they relate to properties' significance: location, design, setting, materials, workmanship, feeling, or association. See Integrity below, and National Register *Bulletin* 15, pp. 44-45.

В

Background Noise - The total of all noise in a system or situation, independent of state highway traffic noise under study.

Baffle - Flow-deflecting structure that provides low-velocity resting water for the passage of fish.

Barrier – A solid wall or earth berm located between the roadway and receiver location that provides noise reduction.

Base Flood Elevation (BFE) – This refers to the calculated or estimated 100-year flood water surface elevation.

Building – A construction created to shelter any form of human activity, including animal husbandry.

\mathbf{C}

Candidate Species – Any species of fish, wildlife, or plant considered for possible addition to the list of endangered and threatened species. These are *taxa* for which NOAA Fisheries or USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Carbon Monoxide (**CO**) – A by-product of the burning of fuels in motor vehicle engines. Though this gas has no color or odor, it can be dangerous to human health. Motor vehicles are the main source of carbon monoxide, which is generally a wintertime problem during still, cold conditions.

Categorical Exclusion/Exemption – An action that does not individually or cumulatively have a significant environmental effect, as defined in NEPA/SEPA regulations, and is classified as excluded (NEPA) or exempt (SEPA) from requirements to prepare an Environmental Assessment/Checklist or Environmental Impact Statement.

Certified Historic Structure – A depreciable building or structure which is either listed in the National Register or located in a National Register Historic District, or in a state- or local-designated historic district, and certified by the Secretary of the Interior as being of historical significance to (i.e., a contributing element in) the district. [36 CFR 67.2.]

Certified Local Governments (CLGs) – Local government historic preservation entities participating in the national historic preservation program, certified by the SHPO. Existence may afford property owners in the CLG jurisdiction the opportunity to participate in local (state, county, etc.) preservation incentives (e.g., tax incentives).

Certified Rehabilitation – On a certified historic property (see definition), work that is certified by the Secretary of the Interior as being consistent with the historic character of the property and, where applicable, with the district in which it is located. [36 CFR 67.2.]

Community Enhancement Areas – Features such as community gateways, roadside parks, viewpoints, agricultural uses, and historic markers.

Community Impact Assessment (CIA) – A process to evaluate the effects of a transportation action on a community and its quality of life. The assessment process should include all items of importance to people, such as mobility, safety, employment effects, relocation, isolation and other community issues.

Compensatory Mitigation – The restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources expressly for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization have been achieved. (See also **Mitigation Bank**.)

Conceptual Mitigation Plan – A document that includes the transportation project description, wetland impacts, and discussion of the mitigation concepts.

Concurrency – The requirement to have needed infrastructure (e.g. roads, sewers, water systems) in place or planned and funded within six years of permitting and development in the jurisdiction where the development is located. The concurrency process was established through the GMA.

Condition or Provision – Requirement attached to a permit specifying, usually in some detail, the terms under which the permitted activity may be conducted; for example, use of best management practices, seasonal work windows, and notification requirements.

Conformity – Projects are in conformity when they do not (1) cause or contribute to any new violation of any standards in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area (USEPA's Conformity Rule).

Constructed Wetlands – Areas created or restored specifically to treat either point or nonpoint source pollution wastewater. Although a constructed wetland might look the same as a created wetland, different regulations apply. Design and maintenance of constructed wetlands is determined according to their stormwater and hydraulic functions. Vegetation is used to maximize the desired functions.

Contaminant – Any physical, chemical, biological, or radiological substance or matter that has an adverse affect on air, water, or soil

Context Sensitive Solutions (CSS) – A proposed transportation project is planned not only for its physical aspects as a facility serving specific transportation objectives, but also for its effects on the aesthetic, social, economic and environmental values, needs, constraints and opportunities in a larger community setting.

Contributing Element (or Resource) – A building, site, structure, or object that adds to the historic architectural qualities, historic associations, or archaeological values for which a property is significant because: (a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period; or (b) it independently meets the National Register criteria. See National Register *Bulletin 16A*, p. 16.

Corps Permits – The U.S. Army Corps of Engineers issues two major permits: the Clean Water Act Section 404 permit for discharge of dredge and fill material into U.S. waters, and the Rivers and Harbors Act Section 10 permit for work in navigable waters. They are commonly referred to in tandem because the same procedures apply to both and they are often issued as a combined permit. WSDOT usually can obtain coverage under a General Permit, issued nationwide for common activities having minimal impact, and occasionally must obtain an Individual Permit for a project having significant impacts.

Corridor – Road and highway right-of-way and the adjacent area that is visible from and extending along the highway. The distance the corridor extends from the highway could vary with different intrinsic qualities.

Council (Advisory Council on Historic Preservation) – An independent federal agency that administers the Section 106 review process.

Council on Environmental Quality (CEQ) – An oversight council established within the Executive Office of the President with passage of the National Environmental Policy Act of 1969. The Council has been assigned the task of ensuring that federal agencies meet their obligations under NEPA. Its role is to advise and assist the President on environmental policy development; recommend strategies and oversee implementation; report, coordinate, support, interpret, and approve procedures; and issue guidance. Regulations are codified as 40 CFR 1500-1508.

Created Wetlands – (See Establishment below).

Criteria Considerations – Additional standards applying to certain kinds of historic properties. [36 CFR 60.4(a-g). See National Register *Bulletin* 15, pp. 24-43.

Criteria for Evaluation (National Register Eligibility Criteria) – Standards used for determining the eligibility of properties for inclusion in the National Register of Historic Places. [36 CFR 60.4(a-d)]. See National Register *Bulletin* 15, pp. 11-24.

Criteria Pollutants - Carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide.

Critical Aquifer Recharge Area (CARA) - Area designed by a city or county for protection under the Growth Management Act.

Critical Habitat – Specific area occupied by a listed species within its geographic range, which contains the physical or biological features essential to the conservation of the species and which may require special protection or management considerations.

Cultural Landscape – Also known as Rural Historic Landscape or Historic Landscape. A geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features. See National Register Bulletin 30 and C.A. Birnbaum and C.C. Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for the Treatment of Cultural Landscapes*, NPS, GPO, Washington, D.C., 1996.

Cultural Patrimony – Regarding cultural items, defined in NAGPRA as material remains of "historical, traditional, or cultural importance to the Native American group or culture itself."

Cultural Resource – A place, object, or event that is important to a community or region's history, traditions, beliefs, customs, or social institutions.

Cultural Resource Specialist (CRS) – A WSDOT employee in the Environmental Services Office who advises department staff on policies relating to items of historic/archaeology significance that may be affected by a project and who conducts regulatory compliance procedures.

Cultural Resources Management – The body of laws and regulations pertaining to historic, archaeological, and cultural properties, and the manner in which those directives are implemented.

Cumulative Effects (ESA) – Effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR §402.02). This section applies only to Section 7 analysis and should not be confused with the broader use of this term in NEPA or other environmental laws. Defined in *Endangered Species Consultation Handbook*, March 1998.

Cumulative Impact/Effect (NEPA) – Impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Defined by FHWA and Council on Environmental Quality (CEQ) regulations (40 CFR 1508.7).

D

Dangerous Waste – Solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous, or extremely hazardous or mixed waste. Dangerous waste includes all federal hazardous waste, plus certain wastes exhibiting specific characteristics based on toxicity and persistence.

Data Recovery Plan – A plan developed in consultation with the SHPO and interested parties for conducting research, gathering information, and documenting an historic property that will be adversely affected by a WSDOT project.

Delineated Wetlands – Wetlands whose boundaries have been identified by a qualified biologist using a standard delineation methodology evaluating soils, vegetation, and hydrology. A right of entry might be required to formally delineate a wetland for project purposes if it does not occur entirely on WSDOT right of way. The delineated boundary is flagged in the field and surveyed. The biology report includes the delineation survey with flag locations and numbering.

Design Year – The future year used to estimate the probable traffic volume for which a highway is designed, usually 10 to 20 years from the beginning of construction.

Designated River – River area added to the National Rivers System by an act of Congress.

Designed Historic Landscape – A landscape that has significance as a design or work of art; that was consciously designed and laid out to a design principle or recognized style or tradition; that has an historical association with a significant person, trend, or event in landscape architecture; or that has a significant relationship to the theory or practice of landscape architecture. See National Register *Bulletin 18*.

Determination of Effect – A finding, by a federal agency in consultation with SHPO, pursuant to compliance with Section 106 (see definition) that a proposed undertaking will have an effect on historic properties. If an effect is identified, the Criteria of Adverse Effect is applied to determine potential Adverse Effect (see definition). Other possibilities are determinations of No Effects and No Adverse Effect.

Determination of Eligibility – Formal recognition (by the SHPO, state Advisory Council, the Keeper of the National Register, or an agency) of a property's eligibility for inclusion, but not actual listing, in the National Register of Historic Places. Determinations of Eligibility may be prepared on National Register Registration Forms (NPS 10-900).

Direct Impact/Effect – A direct impact (or effect) is caused by the proposed action or alternative and occurs at the same time and place, most often during construction. Impacts may be ecological, aesthetic, historic, cultural, economic, social, or health-related. For example, a highway crossing a stream may directly impact its water quality, though such impacts can be mitigated. For NEPA, see 40 CFR 1508.8.

Discipline Report – A WSDOT report prepared by Regional Offices or Divisions to document environmental studies and investigations. <u>Discipline reports form the basis of an Environmental Impact Statement, Environmental Assessment, or Documented Categorical Exclusion.</u>

Disproportionately High and Adverse Impact – The adverse impact is disproportionately high if it is predominately borne by a minority and/or low-income population, or if the adverse impact that could be suffered by the minority or low-income community is more severe or greater in magnitude than the adverse impact that could be suffered by the non-minority or non-low-income community. Cultural differences need to be factored into this analysis.

District – A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. May be an archaeological or historic district, or may contain elements of both.

\mathbf{E}

Easement (Preservation Easement) – An agreement between a private property owner and a public body obligating the owner and future owners to preserve historic features of the property. The owner surrenders opportunities for development potential at "fair market value" for income, estate, and gift tax benefits of equal value.

EDNA - Environmental designation for noise abatement, being an area or zone (environment) within which maximum permissible noise levels are established.

Effect - See Impact.

Eligible – A property is eligible for inclusion in the National Register of Historic Places if it meets the National Register Criteria (see Criteria for Evaluation).

Endangered Species – Any species which is in danger of extinction throughout all or a significant portion of its range.

Enforceable Policies – Under the CZMA, legally binding policies (such as constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions) by which a state exerts control over private and public land and water uses and natural resources in the coastal zone.

Enhancement – The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

Environmental Document – Includes Environmental Assessments (NEPA), SEPA Threshold Determinations (Determination of Significance or Determination of Non-Significance) and associated Environmental SEPA Checklists, Draft and Final EISs, Section 4(f) Evaluations, Section 106 Reports, Environmental Justice Reports and other documents prepared in response to state or federal environmental requirements.

Environmental Enhancement – Going beyond mitigation to use all practical measures to harmoniously fit any proposed highway project into the adjacent communities and natural environment it traverses (1990 FHWA Environmental Policy Statement).

Environmental Justice – Refers to the process of identifying and addressing, as appropriate, disproportionately high and adverse health and/or environmental effects on minority and/or low-income populations.

Environmental Review – Consideration of environmental factors as required by NEPA and SEPA. The "environmental review process" is the procedure used by agencies and others to give appropriate consideration to the environment in decision making.

Essential Public Facility – Defined in RCW 36.70A.200 to include airports, state or regional transportation facilities as defined in RCW 47.06.140, including improvements to facilities and services of statewide significance identified in the statewide multi-modal plan, and other public facilities that are difficult to site.

Establishment – The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.

Evolutionarily Significant Unit – A designation used by NOAA Fisheries for certain local salmon populations or "runs" which are treated as individual species under the Endangered Species Act. This is equivalent to the U.S. Fish and Wildlife Service (USFWS) "Distinct Population Segment" classification.

Exempt Projects – Listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), these are mostly projects that maintain existing transportation facilities or are considered to have a neutral impact on air quality. See also WAC 173-420-120 for projects exempt from regional analysis.

Existing Noise Level – Natural and man made noises considered to be usually present within a particular area's acoustic environment.

Exotic Species – Species found in, but not native to, a particular area.

F

Farmland of Statewide or Local Importance – Farmland, other than prime or unique farmland, that is of statewide or local importance for the production of food, feed, fiber, forage, or oil-seed crops, as determined by the state or local government agency or agencies, using U.S. Department of Agriculture guidelines.

Federal Approval – Approval given to document a federal agency's concurrence that a project complies with a federal statute. These are discussed in **Chapter 420** through **Chapter 470** because they are typically obtained earlier in project design to fulfill NEPA documentation requirements. Several are summarized in **Section 520.09** through **Section 520.12** because they may be needed later in project design: Section 7 Consultation, Section 106 Concurrency, Section 6(f) Approval, and Wild and Scenic Rivers Review.

Federal Nexus – A project has a federal nexus when there is a connection with the federal government; i.e. when any of the following occur: federal land is within the project area, federal money is used in the project, or federal permits or approvals are required as part of the undertaking.

Federal Nexus – When the federal government is connected to a project either by owning land within the project limits, providing project funding, or by requiring a federal permit, approval, or concurrence.

Federal Nexus – When the federal government is connected to a project either by owning land within the project limits, providing project funding, or by requiring a permit.

Final Wetland Mitigation Plan – A document that includes description of all wetlands in the project area, wetland site plan, wetland site plan, wetland revegetation plan, standards of success, operation and maintenance of the mitigation site, and the monitoring plan.

Flood – A general and temporary condition of partial or complete inundation of normally dry land areas from one of the following four sources: (1) Overflow of inland or tidal waters; (2) Unusual and rapid accumulation or runoff of surface waters from any source; (3) Mudslides or mudflows that are like a river of liquid mud on the surface of normally dry land area, as when earth is carried by a current of water and deposited along the path of the current; or (4) Collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water.

Floodplain – Any land area susceptible to being inundated by flood waters from any source; usually the flat or nearly flat land on the bottom of a stream valley or tidal area that is covered by water during floods.

Floodplain Boundaries – Lines on flood hazard maps that show the limits of the 100- and 500-year floodplains.

Floodway – The channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively raising the water surface elevation more that a designated height. Normally, the base flood is defined as the 1 percent chance flood and the designated height is 1 foot above the pre-floodway condition.

Fugitive Dust – Particulate matter that is suspended in the air by wind or human activities and does not come out of an exhaust

Function Assessment – Systematic method(s) designed to evaluate the presence and level of performance of wetland functions. Function Assessment methods include, but are not limited to, Reppert et al., Habitat Evaluation Procedure, Wetland Evaluation Technique, Indicator Value Assessment, WSDOT's BPJ Characterization Tool for Linear Projects, and Hydrogeomorphic methods.

G

General Permit – Issued by a federal or state agency to cover a certain type of activity in a certain geographic area (nationwide, regional or statewide). For most general permits, WSDOT must submit a "Notice of Intent" (NOI) to request coverage under a general permit for a particular activity; the agency may approve or disapprove coverage.

Groundwater – Water that occurs below the surface of the earth, contained in pore spaces. It is either passing through or standing in the soil and underlying strata and is free to move under the influence of gravity.

Growth Management Act (GMA) (Washington) – Requires counties and cities to "identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance." (1990)

H

Habitat – Place where a plant or animal naturally or normally completes its life cycle. Also, the environment occupied by individuals of a particular species, population, or community.

HABS/HAER (Historic American Building Survey/Historic American Engineering Record) – The official documentary collections of the National Parks service, the Library of Congress, and the American Institute of Architects preserving the heritage of historic structures through graphic and written records. HABS/HAER documentation may be assembled and used to mitigate adverse effects to historic structures that meet the National Register eligibility criteria; for example, when an historic bridge that cannot be rehabilitated is scheduled to be replaced, photos with records, etc., can be collected and archived as a way to preserve it.

Hazardous Material – A generic term for any media that contains organic or inorganic constituents considered toxic to humans or the environment. This term covers dangerous waste, problem waste, solid waste, and hazardous substances.

Hazardous Substance – Hazardous substances designated in 40 CFR 116 pursuant to Section 311 of the Clean Water Act include any materials that pose a threat to public health or the environment. Typical hazardous substances have one or more of the following characteristics: toxicity, corrosivity, ignitability, explosivity, and chemical reactivity. Federal regulation of hazardous substances excludes petroleum, crude oil, natural gas, natural gas liquids or synthetic gas usable for fuel. State regulation of hazardous substances includes petroleum products, which are addressed by the Model Toxics Control Act (MTCA).

Hazardous Waste – Solid wastes designated in 40 CFR Part 261 and regulated as hazardous and/or mixed waste by the USEPA. Mixed waste includes both hazardous and radioactive components; waste that is solely radioactive is not regulated as hazardous waste. Hazardous waste includes specific listed waste that is generated from particular processes or activities or exhibits certain

reactive, corrosive, toxic, or ignitable characteristics. Hazardous waste is also regulated by the Washington State Department of Ecology (Ecology) as Dangerous Waste.

Herbicide – A chemical designed to control or destroy plants, weeds, or grasses.

Highways of Statewide Significance – RCW 47.05.022 designates these and sets standards. HSS and other facilities and services of statewide significance are essential public facilities.

Historic Context – A body of information about historic properties organized by theme, place, and time. It is the organization of information about prehistory and history according to the states of development occurring at various times and places.

Historic Preservation – Identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance and reconstruction, or any combination of the foregoing activities relating to historic properties. [16 USC 470w(8)]

Historic Property – A property or cultural resource that is listed in or eligible for listing in the National Register and, under SEPA, in state and local historic registers. Historic properties may be buildings or other structures, objects, sites, districts, archaeological resources, and traditional cultural properties (landscapes).

Hot-spot Analysis – An estimate of likely future localized CO and PM₁₀ pollutant concentrations and a comparison of those concentrations to the National Ambient Air Quality Standards. Hot-spot analysis assesses impacts on a scale smaller than the entire nonattainment or maintenance area (for example, congested roadway intersections and highways or transit terminals), and uses an air quality dispersion model to determine the effects of emissions on air quality (40 CFR 93.101). See 40 CFR 93.116 for analysis procedure.

Hydrology – The science that relates to the occurrence, properties, and movement of water on the earth. It includes water found in the oceans, lakes, wetlands, streams, and rivers, as well as in upland areas, above and below ground, and in the atmosphere.

I

Impact – Synonymous with "Effect". Includes ecological impacts (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health impacts, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes the effect will be beneficial.

Impacted Community – Noise sensitive receptor sites (such as schools or neighborhoods) where people would be exposed to substantially increased noise levels or noise levels that approach abatement criteria due to a project.

Incidental Take – Take of listed species that results from, but is not the intention of, carrying out an otherwise lawful activity.

Indicator – One of the specific environmental attributes measured or quantified through field sampling, remote sensing, or compilation of existing data from maps or land use reports, used to assess ecosystem condition or functions or exposure to environmental stress agents.

Indirect Application – As used in WSDOT's Programmatic NPDES Permit for aquatic nuisance plant and algae control, means application of glyphosate to emergent vegetation for control of nuisance or noxious vegetation along public highways or in constructed or mitigated wetlands containing wetted surface at the time of the application, or which will contain wetted surfaces during the life of the active component of the herbicide.

Indirect Conversion – Acres remaining in a tract that is partially taken for right of way which (a) could no longer be farmed because the project would restrict access, or (b) would likely be converted because of accessibility to a new highway.

Indirect Impact/Effect – Indirect impacts (or effects) are caused by the proposed action or alternative and are later in time or farther removed in distance, but still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems. (Note: "Indirect" is defined somewhat differently under NEPA and ESA rules.) For NEPA, see 40 CFR 1508.8.

Individual Permit – Issued to WSDOT for a particular activity or project that is not covered by a General Permit; usually needed infrequently for more complex or extensive projects.

Injection Well – Any disposal system designed to place fluids, including highway runoff and treated wastewater from onsite sewage disposal systems, into the subsurface. Such systems include bored, drilled, or dug holes; for example dry wells, French drains, and drainfields.

In-kind Compensation – Development of wetlands that are of the same system and class, as defined by Cowardin et al., (1979) in Classification of Wetlands and Deepwater Habitats of the United States, and that provide similar wetland functions and values as those wetlands adversely impacted by development activities.

Integrity – A measure of a property's evolution and current condition, especially as it relates to the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period.

Interdependent Effects – Effects caused by actions that have no independent utility apart from the proposed action.

Interrelated Effects - Effects created by a proposed action that would not occur "but for" that action.

Intrinsic quality – Scenic, historic, recreational, cultural, archaeological, or natural features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area

Invasive Vegetation – Those (typically) nonnative plant species that often out compete native plant communities.

Investment Tax Credit (ITC) – Credit granted by the federal government against tax liability for the certified rehabilitation of buildings for income-producing purposes. Made available by the Economic Recovery Tax Act of 1981.

Irretrievable - Impossible to retrieve or recover.

Irreversible - Impossible to reverse.

Isolated Wetland – A wetland not within the jurisdiction of the U.S. Army Corps of Engineers as defined in the Clean Water Act Section 404. Ecology regulates these wetlands by pre-approving Administrative Orders.

J

Joint Development - Participating jointly with a local jurisdiction or private party in an element of the project or impact mitigation.

Jurisdiction – Governing authority which interprets and applies laws and regulations.

Jurisdictional Wetlands – All naturally occurring wetlands, some wetlands unintentionally created as the result of construction activities, and those created specifically for the compensation of wetland losses. These wetlands are regulated by the Army Corps of Engineers and local jurisdictions. (Ditches created in non-wetland areas that support wetland vegetation are not usually considered jurisdictional wetlands.) Check with the Environmental Services Office for site-specific clarification.

K

Keeper of the National Register – Maintains the National Register of Historic Places, and makes final decisions on listing of properties nominated to the National Register.

L

Landscape Unit – An area or volume of distinct landscape character that forms a spatially enclosed unit at ground level, differentiated from other areas by its slope and its pattern of land cover. A unique segment of the landscape.

Large Woody Debris – Conifer or deciduous logs, limbs, or root wads of a certain diameter which interact with the stream channel and contribute to the habitat diversity of the stream.

Late-Successional – Stage in forest development that includes mature and old growth forest and associated plant and animal species.

Level of Service (LOS) – A tool for identifying the degree of capacity at which a public service or infrastructure operates. The most commonly used is the LOS A-F standard for capacity, volume, and delays at a traffic intersection, F being the worst congestion and delay time period.

License – Issued to an individual, for example a WSDOT maintenance employee who sprays insecticides or herbicides or operates a rest area water system. WSDOT contractors must obtain their own licenses for such activities.

Listed Species – Any species of fish, wildlife, or plant which has been determined to be endangered or threatened under Section 4 of the ESA.

Low-income – A person whose median household income is at or below the Department of Health and Human Services poverty guidelines for that size of household.

Low-income Population – Any readily identifiable group of low-income persons who live in a geographic area, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed DOT program, policy, or activity.

\mathbf{M}

Maintenance Area – An area that previously was considered a "Nonattainment Area" but has achieved compliance with the NAAOS.

Management Plan – Typically addressed appropriate treatments and preservation strategies for managing historic properties. Often included as an item in a Programmatic Agreement (PA – see definition).

Minority – A person who is: (a) Black (a person having origins in any of the black racial groups of Africa); (b) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or the Spanish culture or origin, regardless of race); (c) Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (d) American Indian or Alaskan Native (a person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population – Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

Mitigation – (1) Avoiding the impact altogether by not taking a certain action or parts of an action, (2) minimizing impacts by limiting the degree of the action, (3) rectifying the impact by repairing or enhancing the affected environment, (4) reducing or eliminating the impact over time, (5) compensating for the impact by replacing or substituting resources or environment, or (6) monitoring the impact and taking appropriate corrective measures. Also referred to as "mitigation sequencing". For NEPA, see 40 CFR 1508.2. For SEPA, see WAC 197-11-768.

Mitigation Bank – A site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources. .

Mitigation Bank Credit – A unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions, and values, or by some other assessment method.

Mitigation Bank Currency – The medium of exchange of credits for debits in a mitigation bank. The currency represents an amount of wetland area and functions and values.

Mitigation Bank Debit Project – A project that uses credits from a wetland mitigation bank to fulfill regulatory requirements for compensation of impacts to aquatic resources. A debit project may require more than one regulatory approval under federal, state and local rules.

Mitigation Bank Instrument (MBI) – The documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The MBI describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Mitigation Bank Service Area – A designated geographic area (e.g., watershed, county) wherein a mitigation bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and/or other aquatic resources.

Mitigation Bank Sponsor – Any public or private entity responsible for establishing and, in most circumstances, operating a mitigation bank.

Mitigation Measures - Actions required to mitigate adverse effects to historic properties. Usually stipulated in an MOA/PA.

Modified Natural – River area where the associated natural environment of the river area is relatively undisturbed with little evidence of cultural development and natural resource management. Forest roads, hunters' cabins, and semi-primitive campgrounds may be evident. Natural features dominate the viewscape.

Monitoring – The systematic evaluation of a mitigation site to determine the degree to which the site meets its performance standards and to determine if modifications in the maintenance or management of the site is necessary to achieve the ultimate success standards.

Multiple Property Nomination – A registration of several significant properties linked by a common property type or historic context. Submitted to SHPO and NPS on National Register Multiple Property Documentation Forms (NPS 10-900-b), known as "MPDs." See National Register Bulletin 16B.

N

National Historic Landmark – Historic properties of national significance, established by the Historic Sites Act of 1935 [PL 74-292]. NHLs are also listed in the National Register. [National Historic Landmark Program, 36 CFR 65.]

National Register of Historic Places – The nation's official listing of properties significant in national, state and/or local history, meeting one or more criteria for evaluation (36 CFR 60.4). Listing is commemorative, but may require compliance by property owners with federal/state/local laws and regulations. May also provide private property owners with opportunities to take advantage of preservation incentives, such as easements and tax relief.

Nationwide Permit – A type of General Permit issued by the Corps for either Section 404 or Section 10 permits.

Nationwide Rivers Inventory – A national listing of rivers potentially suitable for inclusion in the National Rivers System.

Natural Wetlands – Wetlands that exist due to natural forces alone, or unintentionally developed through construction or management practices which alter hydrology. Natural wetlands can be found in unusual areas, including filled areas, some ditches, inactive borrow pits, ponds, and agricultural fields. Natural wetlands are protected by federal, state, and local regulations as well as WSDOT's internal policies.

Noise Abatement Criteria (NAC) – Noise levels for various activities or land uses which, when approached or exceeded, are considered to be traffic noise impacts.

Nomination – Official request to have a property listed in the National Register. Documentation is placed on a National Register of Historic Places Registration Form (NPS 10-900) and submitted to the CLG (if appropriate), the SHPO, and the Keeper of the National Register (see definitions). See National Register *Bulletin 16A*.

Nonattainment Area – Area that exceeds health-based NAAQS for certain air pollutants designated by the USEPA. Current nonattainment areas are shown in WSDOT's GIS Workbench.

Non-contributing Element (Resource) – A building, site, structure, or object that *does not* add to the historic architectural qualities, historic associations or archaeological values for which a property is significant because: (a) it was not present during the period of significance; (b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or (c) it does not independently meet the National Register criteria. See National Register *Bulletin 16A*.

Non-jurisdictional Wetlands – Non-jurisdictional wetlands include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, canals excavated in uplands, stormwater detention ponds, wastewater treatment facilities created in uplands, and certain agricultural activities and landscape amenities created in uplands. Grass-lined swales and wastewater treatment facilities can be constructed in wetlands but must be so designated and specifically designed for water treatment purposes. Mitigation is required to compensate for the wetland lost to such a facility. The Shoreline Management Act and Growth Management Act include as non-jurisdictional those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. WSDOT has a "no net loss" policy regarding wetlands and will mitigate impacts to wetlands created after that date.

0

Object – A construction primarily artistic in nature or relatively small in scale.

Old Growth – Forest stand with moderate to high canopy closure; a multilayered, multispecies canopy dominated by large overstory trees; a high incidence of large trees with large, broken tops, and other indications of decadence; numerous large snags and heavy accumulations of logs and other woody debris on the ground.

Operating Permit – Issued to WSDOT to operate a water system, water treatment system, or other facility.

Out-of-Kind Compensation - Compensation that replaces one wetland system and class, as defined by Cowardin, with another.

Ozone (O_3) – A highly reactive form of oxygen that occurs naturally in the earth's upper atmosphere (stratosphere). Stratospheric ozone is a desirable gas that filters the sun's ultraviolet (UV) radiation. Ozone at ground level is not emitted directly into the air; instead it forms in the atmosphere as a result of a series of complex sunlight-activated chemical transformations between oxides of nitrogen (NO_x) and hydrocarbons which together are precursors of ozone.

P

Particulate Matter (PM_{10} and $PM_{2.5}$) – Includes both naturally occurring and artificial particles with a diameter of less than 10 microns or 2.5 microns respectively. Sources of particulate matter include sea salt, pollen, smoke from forest fires and wood stoves, road dust, industrial emissions, and agricultural dust. Particles of this size are small enough to be drawn deep into the respiratory system where they can contribute to infection and reduced resistance to disease.

Patent – Legal title to real property. Granted by the federal government for parcels of the public domain when alienation occurs as the result of homesteading or similar action.

Performance Measures – Quantifiable thresholds of objectives capable of being measured while the site is being monitored during the intermediate years. These parameters provide an indication as to whether or not the site is progressing as intended. Failure to meet a performance measure should initiate adaptive management.

Permit – A document required by law that authorizes a specific type of activity under certain conditions.

Pollutant – Any substance of such character and in such quantities that upon reaching the environment (soil, water, or air), is degrading in effect so as to impair the environment's usefulness or render it offensive.

Preservation (Protection/Maintenance) – The removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with the term preservation. Preservation does not result in a gain of wetland acres but may result in a gain in functions and will be used only in exceptional circumstances.

Prime Farmland – Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland includes land that possesses the above characteristics and may include land currently used as cropland, pastureland, rangeland, or forestland. It does not include land already in or committed to urban development or water storage.

Primitive – River area that is in pristine condition with minimal evidence of human activity.

Problem Waste – Pursuant to WAC 173-350 (as amended in March 2005), problem wastes are defined as soil, sediment, sludge and liquids (groundwater, surface water, decontamination water, etc.) that are removed during the cleanup of a remedial action site, a dangerous waste site closure, or other cleanup efforts and actions that contain hazardous substances but are not designated as dangerous waste pursuant to WAC 173 303. Examples of the type of waste streams that may be disposed under this definition include: (1) Contaminated soil, sludge, groundwater, surface water, and construction demolition debris containing any combination of the following compounds: petroleum hydrocarbons, volatile and semi-volatile organic compounds, polynuclear aromatic hydrocarbons, polychlorinated biphenyls, heavy metals, herbicides, and/or pesticides; (2) Contaminated dredge spoils (sediments) resulting from the dredging of surface waters of the state where contaminants are present in the dredge spoils at concentrations not suitable for open water disposal and the dredge spoils are not dangerous wastes and are not regulated by Section 404 of the Clean Water Act; and (3) Materials containing asbestos.

Programmatic Biological Assessment – A biological assessment designed to cover programs, not specific projects.

Programmatic Permit – A General Permit issued to cover a certain type of program such as bridge and ferry terminal washing/cleaning, culvert maintenance, or use of insecticides for mosquito control.

Project Description – A narrative written by the proponent to describe the project proposal. It may include explanations of the existing physical, environmental, social, and economic setting in which the proposed project is situated, a legal description of the location, and an explanation of the intended improvements.

Project Permit – Issued to WSDOT for of a new construction or major maintenance project.

Property Type – Historic properties sharing physical or associative characteristics.

Proposed Species – Any species of fish, wildlife, or plant that is proposed by NOAA Fisheries or USFWS for federal listing under Section 4 of the ESA.

Public Service – SEPA lists fire, police, schools, parks or other recreational facilities, maintenance, communications, water/stormwater, sewer/solid waste, and other governmental services or utilities as elements of the built environment to be considered during the environmental review process.

R

Recreational River Areas – Rivers or sections of rivers that are readily accessible by road or railroad that may have undergone some impoundment or diversion in the past.

Regionally Significant Project – A transportation project (other than an exempt project) that serves regional transportation needs, such as access to and from the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, or transportation terminals as well as most terminals themselves. Such projects would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel (40 CFR 93.101).

Registration Requirements – Attributes of significance and integrity qualifying a property for listing in the National Register; especially important in establishing eligibility for each property type in Multiple Property submissions.

Rehabilitation – The process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values. [36 CFR 67.2]

Relocation – The adjustment of utility facilities required by a highway project. Includes removing and installing facilities, acquiring necessary property rights in the new location, moving or rearranging existing facilities, or changing the type of facility, including any necessary safety and protective measures. Also means constructing a replacement facility, functionally equal to the existing facility, where necessary for continuous operation of the utility service, project economy, or for staging highway construction.

Resource – Referred to in NEPA and SEPA implementing regulations as "natural or depletable" resources (CEQ 1502.16; WAC 197-11-440 (6)) and renewable or nonrenewable resources (WAC 197-11-444). FHWA Technical Advisory T 6640.8A (October 30, 1987) refers to "natural, physical, human, and fiscal resources" in guidance on irreversible and irretrievable commitments of resources.

Responsible Official – Official of the lead agency who has been delegated responsibility for complying with NEPA/SEPA procedures.

Restoration – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Re-establishment results in a gain in wetland acres.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

Rural – River area characterized by extensive agricultural and other resource-related activities. Cultural development is typically scattered homes and communities.

Rural Historic Landscape – See Cultural Landscape, and National Register *Bulletin* 30.

S

Salmonid – Fish of the family *Salmonidae* which include salmon and trout.

Scenic Byway – Public road having special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized as such through legislation or some other official declaration for its scenic, historic, recreational, cultural, archaeological, or natural qualities.

Scenic Corridor Management Plan – Written document that specifies the actions, procedures, controls, operational practices, and administrative strategies needed to maintain the scenic, historic, recreational, cultural, archaeological, and natural qualities of a scenic byway.

Scenic River Areas – Rivers or sections of rivers that are free of impoundment, with shorelines or watersheds still largely undeveloped, but accessible in places by roads.

Scoping – Formal scoping for an EIS includes identifying the range of proposed actions, alternatives, environmental elements and impacts, and mitigation measures to be analyzed in an environmental document. Public and agency scoping meetings are generally

associated with this activity for NEPA scoping activities. (SEPA does not require a public hearing during the SEPA scoping for an EIS.)

Secondary Effect/Impact – Same as indirect effect under NEPA.

Setting – Quality of integrity applying to the physical environment of an historic property.

Shorelines – Land within 200 feet of the ordinary high water mark of waters of the state, including marine waters, rivers, streams, lakes, and reservoirs, and their associated wetlands, floodways, deltas, and floodplains. The Shoreline Management Act (RCW 90.58.030 (2d)) excludes streams with a mean annual flow of 20 cfs or less and lakes smaller than 20 acres (including adjacent wetlands).

Shorelines of Statewide Significance – Shorelines for which there is special interest in preserving the natural characteristics and encouraging and increasing public access.

Significant Impact – The significance of potential impact on the natural or built environment depends upon context, setting, likelihood of occurrence, and severity, intensity, magnitude, or duration of the impact. WAC 197-11-330 specifies a process, including criteria and procedures, for determining whether a proposal is likely to have a significant adverse environmental impact.

Site – Any alternative alignment on a highway project, including areas converted directly (within the right of way) or indirectly by a proposed action (see "Indirect Conversion"). Also, for cultural resources, the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.

Sole Source Aquifer (SSA) – Any aquifer which (1) is so designated by USEPA, (2) supplies 50 percent or more of the drinking water to the population living over the aquifer, (3) has distinct hydrogeological boundaries, and (4) for which there is no economically feasible alternative source of drinking water if it should be contaminated.

Solid Waste – State regulations define solid waste as all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, problem wastes as defined above, and recyclable materials. Federal regulations define solid waste as any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, and agricultural operations and from community activities. Solid waste includes hazardous and problem wastes.

Source Water Protection Area – Area protected for drinking water supplies.

Special Flood Hazard Area – An area with a one percent chance of being flooded in any given year; hence the property is in the 100-year floodplain. The special flood hazard areas are further defined as numbered and un-numbered "A" zones which describe whether the determination is based on approximate or detailed flood studies, and whether formal BFEs have been established.

State Implementation Plan (SIP) – Framework for complying with federal law (40 CFR Part 51) requiring that the state take action to quickly reduce air pollution to healthful levels in a non-attainment area, and to provide enough controls to keep the area clean for 20 years. States have to develop a SIP that explains how it will do its job under the CAA. A SIP is a collection of the regulations a state will use to clean up polluted areas. USEPA must approve the SIP, and if a SIP is not acceptable, USEPA can take over, enforcing the CAA in that state. WSDOT projects must conform to the SIP before the FHWA and the USEPA can approve construction.

Stormwater – Rainwater that flows over land and into natural and artificial drainage systems. Stormwater runoff is a major transporter of nonpoint source pollutants.

Structure – Functional constructions made usually for purposes other than creating shelter.

Study River – River area to be studied to determine if it qualifies for addition to the National Rivers System.

Substantial Development – Any development of which the total cost, or fair market value, exceeds \$2,500.00, or any development that materially interferes with normal public use of the water or shorelines of the state.

Success Standards – Parameters, generally measured during the last (close-out) year of monitoring, to determine whether or not the objectives were achieved, and the site is in compliance with the terms of the permit. A contingency plan, for remediation, is put into effect should the objectives fail to achieve their individual targets.

Surface Runoff - Overland flow of water.

Surface Water – All water naturally open to the atmosphere, such as rivers, lakes, reservoirs, ponds, streams, seas, and estuaries.

Suspended Sediment – Fine material or soil particles that remain suspended by the current until deposited in areas of weaker current. Can be measured in a laboratory as "Total Suspended Solids" (TSS).

\mathbf{T}

Take – Defined under the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct," including modification to a species' habitat.

Threatened Species – Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Threshold Determination – This determination by the responsible official of the lead agency is part of the SEPA process. This decision determines if an EIS is required; if so a Determination of Significance is issued. If project impacts are not significant (i.e. requiring an EIS), a Determination of Non-Significance is issued with an environmental checklist. A Mitigated Determination of Non-Significance results in an expanded environmental checklist with increased emphasis on the mitigation of project impacts.

Traditional Cultural Property – A place eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that are (a) rooted in that community's history, and (b) important in maintaining the continuing cultural identity of the community.

Traffic Noise Impacts – Impacts which occur when the predicted traffic noise levels approach or exceed the Noise Abatement Criteria or when the predicted traffic noise levels substantially exceed the existing noise levels.

Transportation Facilities of Statewide Significance – Defined in RCW 47.06.140 to include the interstate highway system, interregional state principal arterials including ferry connections that serve statewide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions as defined in RCW 81.104.015.

Transportation Improvement Program (**TIP**) – A staged, multiyear intermodal program of transportation projects covering a metropolitan planning area which is consistent with the state and metropolitan transportation plan, and developed pursuant to 23 CFR Part 450. The entire program must conform with the NAAQS in order for any federal funding to be granted for individual projects (except exempt projects).

Turbidity – A condition in water caused by the presence of suspended material resulting in scattering and absorption of light rays.

Type I Project – A proposed highway construction at a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of traffic through lanes.

Type II or Retrofit Project - A proposed project for noise abatement on an existing highway or highway configuration.

U

Undertaking – Any activity that can result in changes in the character or use of historic properties. The activity must be under the direct or indirect jurisdiction of a federal agency or licensed or assisted by a federal agency. [36 CFR 800.2(o).]

Unique Farmland – Land other than prime farmland that is used for production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include lentils, nuts, annually cropped white wheat, cranberries, fruits, and vegetables.

Universal Transverse Mercator (UTM) Grid System – Method for locating historic properties using USGS maps and measurements cited in linear, decimal units. Measurements are referred to as "UTMs."

Urban – River area that is intensively modified by cultural activities, primarily residential and light commercial development. The river has high water quality and highly rated natural features such as historical and archaeological sites, fisheries resources, wildlife, or recreational values.

Urban Growth Area – The identified boundary that allows for higher density and focused infrastructure development to control growth from "sprawling" into the identified rural and sensitive areas of local jurisdictions.

Utility – Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, cable television, electric power, light, heat, gas, oil, crude products, water, steam, waste, stormwater not connected with highway drainage, and other similar commodities, including any fire or police signal systems, street lighting systems, and traffic control system interties, which directly or indirectly serve the public. (WSDOT *Utilities Manual* (M 22-87), Chapter 2.)

V

Viability – Ability of a population to maintain sufficient size so it persists over time in spite of normal fluctuations in numbers; usually expressed as a probability of maintaining a specific population for a defined period.

Viewer Group – Classes of viewers differentiated by their visual response to the facility and its setting. Response is affected by viewer activity, awareness, and values.

Viewer Sensitivity – The viewer's variable receptivity to the elements within the environment they are viewing. Sensitivity is affected by viewer activity and awareness.

Viewshed - All the surface areas visible from an observer's viewpoint.

Visual Element – A particular feature of the visual environment.

Visual Function – The component of a transportation project that is designed and experienced primarily from a visual perspective; includes positive guidance and navigation, distraction screening, corridor continuity, roadway and adjacent property buffering, and scenic view preservation.

Visual Quality – Character of the landscape, which generally gives visual value to a setting.

W

Wastewater – Literally, water that has been used for some purpose and discarded, or wasted; typically liquid discharged from domestic residential, business, and industrial sources that contains a variety of wastes.

Water Right - Legal authorization to use a certain amount of public water for specific beneficial purposes.

Watershed – The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point. Also, a basin including all water and land areas that drain to a common body of water

Wellhead Protection Area – Area managed by a community to protect groundwater drinking water supplies.

Wetland – Area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not usually include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate conversion of wetlands, if permitted by the appropriate authority.

Wetland Buffer – The area adjacent to a wetland that serves to protect the wetland from outside influences. Wetland buffers also contribute to the integral functions of the wetland. Regulated buffer widths vary depending upon the quality of the wetland and guidelines established by the local jurisdiction under the state Growth Management Act. Required buffer widths are identified in the project's wetland/biology report. Wetland buffers must be shown on contract plans sheets. No work may occur within an identified wetland buffer area unless it has been approved by the appropriate permitting agency.

Wetland Functions – Wetland functions are the physical, chemical, and biological processes or attributes that are vital to the integrity of wetland/upland landscape interrelationships (landscape systems).

Wetland Inventory – A wetland inventory is a data collection process during which information about the presence, approximate extent, and in some cases the characteristics of wetlands are collected. Inventories can be general (e.g., aerial photographs) or site-specific (through field inventory work).

Wetland Values – Wetland values are those attributes that, although not necessarily essential to the integrity of the landscape systems, are perceived as valuable to society (Adamus et al., 1991).

Wild River Areas – Areas or sections of rivers of the United States that are free of impoundment and generally inaccessible, except by trail, with watersheds or shorelines essentially un-touched and waters unpolluted. They represent vestiges of America prior to European settlement.

Wilderness – Areas defined in the Wilderness Act where "the earth and its community of life are untrammeled by man, where man is a visitor who does not remain..."

Home pages for agencies referenced in the EPM and relevant sub-pages. Agency regional contact information is also located in **Appendix G-2**.

FEDERAL

Agencies and Organizations	Abbreviation	Web Site	
Advisory Council on Historical	ACHP	http://www.achp.gov/ (contact info is on this page)	
Preservation		Section 106: http://www.achp.gov/work106.html	
		Federal, State, and Tribal Historic Preservation Programs and Officers: http://www.achp.gov/programs.html	
Bureau of Land Management,	BLM	http://www.or.blm.gov/	
Oregon/Washington		(this site is currently down for maintenance)	
		Contact info: http://www.or.blm.gov/contactus.htm	
		Special-Status Species Program: http://www.or.blm.gov/sss.htm	
		Lands and Realty web site: http://www.blm.gov/nhp/what/lands/realty/	
Council on Environmental	CEQ	http://www.whitehouse.gov/ceq/ (contact info is on this page)	
Quality		NEPA Task Force: http://ceq.eh.doe.gov/ntf/	
Federal Aviation Administration	FAA	http://www.faa.gov/	
		Northwest Mountain region: http://www.nw.faa.gov/	
		Contact Info: http://www.nw.faa.gov/organzn.html	
		Regulations and Policies: http://www.faa.gov/regulations_policies/	
Federal Transit Administration	FTA	http://www.fta.dot.gov/	
		Local Transit Authorities in WA: http://www.fta.dot.gov/9054_8984_ENG_HTML.htm	
National Marine Fisheries	NMFS	http://www.nmfs.noaa.gov/	
Service		Northwest Regional Office: http://www.nwr.noaa.gov/	
		Consultation Initiation for BA/BEs: http://www.cit.noaa.gov/nosign/	
		Section 10 Information:	
N.C. ID. IO.	NDO	http://www.nwr.noaa.gov/1salmon/salmesa/permit.htm	
National Park Service	NPS	http://www.nps.gov/	
		Regional Office addresses: http://www.nps.gov/legacy/regions.html	
		Office of Policy: http://data2.itc.nps.gov/npspolicy/index.cfm	
		National Wild and Scenic Rivers system: http://nps.gov/rivers/	
Natural Resource Conservation	NRCS	http://www.nrcs.usda.gov	
Service		Washington State web site: http://www.wa.nrcs.usda.gov/	
		Contact Info for Washington: http://www.wa.nrcs.usda.gov/contact/index.html	
		Service Center Locator: http://oip.usda.gov/scripts/ndCGI.exe/oip_public/state?state=WA	

Agencies and Organizations	Abbreviation	Web Site
US Army Corps of Engineers	Corps	http://www.nws.usace.army.mil/index.cfm
Seattle District		Contact Info: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= Contacts&pagename=home
		WSDOT Team: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= REG&pagename=Team_DOT
		Hazardous Waste: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= pmem&pagename=Index
		Boundary Maps: http://www.nws.usace.army.mil/PublicMenu/Doc_list.cfm?sitenam e=GIS&pagename=maps
		Regulatory/Permits: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= REG&pagename=Home_Page
		Permit and Applicant Info: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= REG&pagename=mainpage_Permit_Applicant_Info
		Nationwide Permits: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= REG&pagename=mainpage_NWPs
		Standard Individual Permit Process: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename= REG&pagename=Individual_Permits
US Department of Justice	USDOJ	http://www.usdoj.gov/
		Contact Info: http://www.usdoj.gov/contact-us.html
US Department of	FHWA	http://www.fhwa.dot.gov/
Transportation		Field Office addresses: http://www.fhwa.dot.gov/fieldoff.htm
Federal Highway Administration		Washington Division website: http://www.fhwa.dot.gov/wadiv/index.htm
		Division Office teams: http://www.fhwa.dot.gov/wadiv/teams.htm
		Program-specific Information: http://www.fhwa.dot.gov/wadiv/progdel.htm

Agencies and Organizations	Abbreviation	Web Site
US Environmental Protection	USEPA	http://www.epa.gov/
Agency		Regional office Contact Info: http://www.epa.gov/epahome/postal.htm
		Pacific Northwest web site: http://www.epa.gov/region10/
		Region 10 Contact Info: http://yosemite.epa.gov/r10/homepage.nsf/webpage/Contact+Us? opendocument
		Water Quality: http://yosemite.epa.gov/R10/WATER.NSF/webpage/Water+Issue s+in+Region+10
		Air Quality: http://yosemite.epa.gov/R10/AIRPAGE.NSF/webpage/Air+Quality
		Waste and Chemicals: http://yosemite.epa.gov/R10/OWCM.NSF/webpage/homepage?o pendocument
		Laws and Regulations: http://www.epa.gov/epahome/lawregs.htm
		USEPA Programs: http://www.epa.gov/epahome/programs.htm
US Fish and Wildlife Service	USFWS	http://www.fws.gov/
		Pacific Region: http://pacific.fws.gov/
		Office Directory: http://pacific.fws.gov/phonedir/office/index.cfm
		National Wetlands Inventory: http://wetlands.fws.gov/
		Section 7 Consultation: http://www.fws.gov/endangered/consultations/index.html
USDA Forestry Service	FS	http://www.fs.fed.us/
		Pacific Northwest Region: http://www.fs.fed.us/r6/welcome.shtml
		Contact Info: http://www.fs.fed.us/r6/people.htm
		Natural Resources: http://www.fs.fed.us/r6/nr.htm
U.S. Coast Guard	USCG	http://www.uscg.mil
		Pacific Northwest: http://www.uscg.mil/d13/
		Unit List: http://www.uscg.mil/d13/ipa/pacific_northwest_unit_list.htm

WASHINGTON STATE

Agencies and Organizations	Acronym or Abbreviation	Web Site	
Associated General	AGC	http://www.agcwa.com/	
Contractors of Washington		Contact Info: http://www.agcwa.com/public/contact/contact.asp	
Community, Trade, and	CTED	http://www.cted.wa.gov/	
Economic Development		Contact Info:	
		http://www.cted.wa.gov/portal/aliascted/langen/tabID38 /DesktopDefault.aspx	
County Road Administration	CRAB	http://www.crab.wa.gov/	
Board		Contact Info: http://www.crab.wa.gov/contacts.asp	
Department of Ecology	Ecology	http://www.ecy.wa.gov/	
		Contact Info: http://www.ecy.wa.gov/feedback.html	
		Regional Offices: http://www.ecy.wa.gov/org.html	
		Office of Regulatory Assistance: http://www.ecy.wa.gov/programs/sea/pac/index.html	
		Environmental Permit Handbook: http://apps.ecy.wa.gov/permithandbook/	
		JARPA: http://www.ecy.wa.gov/programs/sea/pac/jarpa.html	
		Isolated Wetlands Worksheet: http://www.ecy.wa.gov/programs/sea/pac/pdf/IsolatedWetland	
		sInfoSheet.pdf	
		TDMLs: http://www.ecy.wa.gov/programs/wq/tmdl/index.html	
		Environmental Programs: http://www.ecy.wa.gov/programs.html	
		Publications and Forms: http://www.ecy.wa.gov/pubs.shtm	
Department of Fish and Wildlife	WDFW	http://wdfw.wa.gov/	
		Contact Info: http://wdfw.wa.gov/contact.htm	
		Regional Offices: http://wdfw.wa.gov/reg/regions.htm	
		North Puget Sound web site: http://wdfw.wa.gov/reg/region4.htm	
Department of Natural	DNR	http://www.dnr.wa.gov	
Resources		Regional Offices: http://www.dnr.wa.gov/base/regions.html	
		Rights-of-Way: http://www.dnr.wa.gov/htdocs/sales_leasing/leasing/rightsofwa y/index.html	
		Forest Practices: http://www.dnr.wa.gov/forestpractices/	
		Surface Mining: http://www.dnr.wa.gov/geology/smforms.htm	
		Survey Monument: http://www.dnr.wa.gov/htdocs/plso/	

Agencies and Organizations	Acronym or Abbreviation	Web Site
Department of Transportation	WSDOT	http://www.wsdot.wa.gov/
		ESO: http://www.wsdot.wa.gov/environment/
		ESO Contact List:
		http://www.wsdot.wa.gov/environment/ES_StaffList.htm
		Hazardous Materials: http://www.wsdot.wa.gov/environment/hazmat/
		Air Quality, Acoustics and Energy: http://www.wsdot.wa.gov/environment/air_noise/default.htm
		Biology:
		http://www.wsdot.wa.gov/environment/biology/default.htm
		Compliance Branch:
		http://www.wsdot.wa.gov/environment/compliance/
		Tribal Liaison: http://www.wsdot.wa.gov/tribal
		NPDES: http://www.wsdot.wa.gov/environment/wqec/#NPDES
		WSDOT Programmatic Permits: http://www.wsdot.wa.gov/environment/Programmatics/
Puget Sound Regional Council	PSRC	http://www.psrc.org/
		Contact Info: http://www.psrc.org/contact.htm
		Maps and Boundary files: http://www.psrc.org/datapubs/maps/index.htm
Office of Archaeology and	OAHP	http://www.oahp.wa.gov/
Historic Preservation		Contact info is listed on this page.
		Archaeological forms: http://www.oahp.wa.gov/pages/Documents/Archaeology.htm
		Washington Heritage Register list: http://www.oahp.wa.gov/pages/HistoricSites/documents/HistoricPlacesinWashingtonReport.pdf
Governor's Office of Indian	GOIA	http://www.goia.wa.gov
Affairs		Contact Info: http://www.goia.wa.gov/ContactUs/Contact.htm
		Tribal directory: http://www.goia.wa.gov/directory/pdf/Directory%20updates%2 0of%207.20.04.pdf.pdf
Department of Health	DOH	http://www.doh.wa.gov
		Regional Offices: http://www.doh.wa.gov/DOHDirections/default.htm
		Local Offices: http://www.doh.wa.gov/LHJMap/LHJMap.htm
		LOSS: http://www.doh.wa.gov/ehp/ts/ww/loss/default.htm
		Office of Drinking Water: http://www.doh.wa.gov/ehp/dw/default.htm

Note: Web sites for accessing statutes and regulations are listed at the end of this table.

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
	Abandoned and Historic Cemeteries Act	RCW 68.04-05		456
	American Indian Religious Freedom Act, 1978	PL 95-341; 92 Stat. 469		456
ADA	Americans with Disabilities Act	PL 336-101	23 CFR 652	457, 458. 460
	Antiquities Act, 1906	16 USC 431		456
	Archaeological and Historic Preservation Act, 1974	16 USC 469; PL 93-291		456
ARPA	Archaeological Resources Protection Act, 1979	16 USC 470; PL 93-95	43 CFR 3	456, 520, 530
	Archaeological Sites and Resources Protection Act	RCW 27.53		456, 540
	Aviation Siting	RCW 36-71A-510		460
	Bald and Golden Eagle Protection Act	USC 16-5a	WAC 232-12-292	436
	Bicycle and Pedestrian Traffic	RCW 47.30		460
	Civil Rights Act	USC 42-20 et al.		457, 458
CAA	Clean Air Act and Amendments	42 USC 7901 et seg.		210, 425, 447, 540
CAWA	Clean Air Washington Act	RCW 70.94; RCW 70.120	WAC 173-420	210, 425, 447, 454, 540
CWA	Clean Water Act	33 USC 1251 et seq.	33 CFR 26	210, 431, 433, 437, 447, 452, 520, 530, 540
	Water Pollution Control Act	RCW 90.48	WAC 173-200; WAC 173-201A	420, 431, 433, 437, 447, 540
CAO	Critical (or Sensitive) Areas Ordinances	City & County		436, 437, 452, 550
CZMA	Coastal Zone Management Act	16 USC 1451	15 CFR 923-930	431, 437, 452, 540
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	42 USC 103		447, 540
CARA	Critical Aguifer Recharge Ordinances	City & County (RCW 36.70A)		433
	Dangerous Waste Regulations	RCW 70-105	WAC 173-303	447, 540
Section 4(f)	Department of Transportation Act, Section 4(f)	49 USC 303	23 CFR 771	411, 453, 455, 456, 458, 459
	Design, Arts, and Architecture Program	DOT Order 5610C, revised		455, 456
	Design Standards – Vehicular Traffic	RCW 47.24; RCW 47.18-04	WAC 468-04	460
	Diversity and Equity	Governor's EO 93-07		458
	Economic Recovery Tax Act, 1981	PL 97-34		456

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
ESA	Endangered Species Act, 1973	16 USC 35		431, 436, 437, 447,
				520
	Environmental Justice	President's EO 12898		458
	FAA Regulations		FAR Part 77.13(a)(2)	460, 520
	Farmlands Preservation	Governor's EO 80-01		454
FPPA	Farmlands Protection Policy Act	7 USC 4201-4209		454
	Federal Aid Highway Act	23 USC 109(h)	23 CFR	458, 810
	Fish and Wildlife Coordination Act	16 USC 661-667(e)		436
	Fish Passage Law	RCW 77.55.060		436
Magnuson- Stevens Act	Fisheries Conservation & Management Act	16 USC 1800		436
	Flood Control Management Act	RCW 89.09		432, 550
	Floodplain Management	President's EO 11988		432
	Forest Management Act	16 USC 1604(g)(3)(B)		436
	Forest Practices Act	RCW 76.09.020	WAC 222-20	436, 455, 540
	Franchises on State Highways	RCW 47.44		470
Section 9	General Bridge Act, 1945	33 USC Section 525	33 CFR Parts 114-115	460, 520
GMA	Growth Management Act	RCW 36.70a		210, 420, 433, 437,
	Growth Strategies Act			451, 454, 460, 520,
	ů .			540, 550
	Hazardous Waste Management Act (Dangerous Waste Regulations)	RCW 70-105	WAC 173-303	447
	Highway Beautification Act		23 CFR 750	459
	Highway Beautification Act	RCW 47-40.010		459
Section 106	Historic Preservation Act, Section 106	16 USC 470, PL 89-655	30 CFR 800	411, 456, 458, 459,
				520, 530
	Indian Graves and Records Act	RCW 2744		456
ISTEA	Intermodal Surface Transportation Efficiency Act,	23 USC 101(g) – 133(b)	40 CFR 93 (CEQ)	425, 456, 459
	1991	-	23 CFR 450 (FHWA)	
Section 6(f)	Land & Water Conservation Funds Act, Section 6(f)	16 USC 460L 4-11; PL 88-578	WAC 286-24-050	411, 455, 520
	Lead-Based Paint Regulations		WAC 173-303, 296-62 & 296-155	447
LEP	Limited English Proficiency	President's EO 13166		457, 458
	Marine Mammal Protection Act	USC 16-31		436
	Migratory Bird Treaty Act	USC 16-7-11		436
	Model Toxics Control Act	RCW 70-105D	WAC 173-340	447
NEPA	National Environmental Policy Act	42 USC 4321 et seq.; PL 91-	40 CFR Part 1500.1 (CEQ)	310, 410 - 480
		<u>190</u>	23 CFR 771 (FHWA)	

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
	National Trails System Act, 1968	16 USC 124-1249		453
	Native American Graves Protection and Repatriation Act	PL 101-601; 104 Stat. 3048		456
	Noise Control Act	42 USC 4901 et seq. 23 USC 109i	24 CFR 772	446
	Noise Control Act	RCW 70-107 RCW 88.12 (Vessels)	WAC 173-58, 60, 62	446
OSHA	Occupational Safety and Health Act	WAC 296-62	29 CFR 1910; WAC 296-62	447, 510
	Open Space and Preservation	RCW 84.34		459
	Rail Traffic Easements	RCW 47.12.026		460
RCRA	Resource Conservation and Recovery Act and Hazardous Waste Amendments		40 CFR 280, 281;40 CFR 61 WAC 173-303	447, 520
	Rivers and Harbors Act, Section 9, Section 10	33 USC 403	33 CFR Parts 114-115	452, 460, 540
SAFETEA-LU	Safe, Accountable, Flexible, Efficient	PL 109-59		210, 320, 410. 411,
	Transportation Equity Act: A Legacy for Users			425, 456, 458, 459
	Safe Drinking Water Act	42 USC 6A; PL 104-182		433, 447
	Salmon Recovery Act	RCW 77.85		210
	Scenic Rivers System	RCW 79.72	WAC 173-204	453
SMA	Shoreline Management Act	RCW 90.58	WAC 173.26, WAC 173.19	431, 436, 437, 452
	Section 4(f), Dept. of Transportation Act		23 CFR 771.135(d)	411, 453, 455, 456
	Section 6(f), Land & Conservation Funds Act		16 USC 460L 4-11; PL 88-578 WAC 286-24-050	411, 456
	Sediment Management Standards		WAC 173-204	447
	Solid Waste Management Act	RCW 70.95	WAC 173-304; WAC 173-350	447
SEPA	State Environmental Policy Act	RCW 43.21C	WAC 197-11 (Ecology) WAC 468-12 (WSDOT)	310, 410 through 480, 520, 540
STURAA	Surface Transportation & Uniform Relocation Assistance Act	23 USC 144 (o)		456
TRA	Tax Reform Act	PL 99-514		456
TSCA	Toxic Substances Control Act	15 USC 2601-2629		447
	Trails System Act	16 USC 1241 – 1249		453
TEA-21	Transportation Equity Act for the 21st Century	PL 105-178		210, 425, 451, 456, 460
	Transportation Programming	47.05 RCW		320
UIC	Underground Injection Control	RCW 43.21A.445	WAC 173-218	433, 540
	Underground Storage Tanks		WAC 173-360, WAC 51-34-7902.1.7.2.3	447, 540

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
	Uniform Relocation Assistance and Real Property			457
	Acquisition Act			
	Utility Franchises and Permits	RCW 47.44	WAC 468.34	470, 810
	Utility Relocation Reimbursement		23 CFR 645	470
	Water Pollution Control Act	RCW 90.48	WAC 173-200; WAC 173-201A	431, 433, 437, 447,
				452, 540
	Water Quality Standards	RCW 90.48	WAC 173-210 (surface & marine water)	431, 433, 447
			WAC 173-200 (groundwater)	
	Watershed Planning Law	RCW 90.82		431
	Wellhead Protection		WAC 246.290	433
	Wetland Mitigation Banking	RCW 90.84	WAC 173-700	437
	Wetland Protection	President's EO 11990		437
		DOT Order 5660.1A		
		Governor's EO 89-10 & 90-04		
	Wild and Scenic Rivers Act	16 USC 28		453, 459, 520
	Wilderness Act	16 USC 1131-1136		453

United States Code (USC) – http://www.gpoaccess.gov/uscode/

Code of Federal Regulations (CFR) – http://www.gpoaccess.gov/cfr/index.html

Revised Code of Washington (RCW) – http://www.leg.wa.gov/rcw/index.cfm

Washington Administrative Code (WAC) – http://www.leg.wa.gov/wac/

Notes

- 1. Index number is for reference to accompanying matrix and narrative summary of provisions in these agreements.
- 2. In "Status" column "Dated" means the date of last signature unless effective date is given in the document.

Index	Topic	Formal Title	Status	Location	Manual Section
1	NEPA Programmatic Categorical Exclusions	Memorandum of Understanding between Washington State Department of Transportation and Federal Highway Administration – Programmatic Categorical Exclusion Approvals. May 1999.	Signed 5/25/99 No expiration date.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	310.07, 411.04
2	NEPA Documented Categorical Exclusions - SEPA Compliance	Implementing Agreement between WSDOT and Ecology Concerning Adoption of NEPA Documented Categorical Exclusions. June 1996.	Signed 6/20/96 Revised 4/98 Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	310.07, 410.05, 411.04
3	WSDOT/Ecology Coordination and Cooperation – Information for Permitting	MOA – WSDOT and Ecology 8/4/88	Dated 8/4/88. Agencies agree to coordinate technical and environmental information to provide timely efficient review of permit applications.	Superceded by 1998 Water Quality Implementing Agreement.	
4	Fugitive Dust	Memorandum of Agreement between the Washington State Department of Transportation and the Puget Sound Clean Air Agency Regarding the Control Fugitive Dust from Construction Projects. October 14, 1999.	Dated 10/14/99 Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	425.04

Index	Topic	Formal Title	Status	Location	Manual Section
5	Integrating Aquatic	Signatory Agency Committee Agreement to	Effective 9/17/02	http://www.wsdot.wa.gov/	310.07,
	Permit Requirements with NEPA / SEPA Process	Integrate Aquatic Resources Permit Requirements into the National Environmental Policy Act and the State Environmental Policy Act Processes in the State of Washington. September 17, 2002.	Revision of 1996 agreement referred to as "NEPA/404 Merger Agreement"	environment/compliance/ SAC_committee.htm	411.06, 431.04, 437.04, 520.02, 520.03
			Can be terminated with 30 days notice.		520.03
6	Corps Permit Process	Working Agreement between the Seattle District,	Dated 7/26/93.	N/A	
		Corps of Engineers, the Washington Division, Federal Highway Administration, and the Washington State Department of Transportation.	Can be terminated with 30 days notice.		
		July 26, 1993.	No longer in effect		
7	Surface Water Quality Standards	Compliance Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards. November 5, 2004.	Signed 11/5/04 No termination date.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	431.04, 447.04, 540.02, 540.04- 540.08, 610.03, 710.03
8	Surface Water Quality Standards	Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards, February 13, 1998.	Signed 2/13/98 Some administrative conditions have been replaced by NPDES programmatic permits. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	431.04, 447.04, 540.02, 540.04- 540.08, 610.03, 710.03
9	Sole Source Aquifer	MOU Between the FHWA Region 10, Portland, Oregon, and the USEPA Region 10, Seattle	Last signed 8/16/88	http://www.wsdot.wa.gov/environment/compliance/	433.04
		Washington, and WSDOT, Olympia Washington; Sole Source Aquifer, State of Washington, June 1988.	No termination provision.	agreements.htm	

Index	Topic	Formal Title	Status	Location	Manual Section
10a	Construction of Projects in State Waters	Memorandum of Agreement between Washington State Department of Fish and Wildlife and Washington State Department of Transportation	Signature page blank – no dates – Cover is dated June 2002	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	431.04, 436.04, 540.15,
		Concerning Construction of Projects in State Waters. June 2002.	Can be terminated with 60 days notice.		610.03, 710.03
10b	Hydraulic Code Compliance	Memorandum of Understanding between Washington State Departments of Fisheries, Wildlife, and Transportation, Concerning Compliance With the Hydraulic Code (RCW 75.20.100 and Chapter 220-110 WAC). August 1990	REPLACED BY MOA on Construction in State Waters 6/02	N/A	
10c	Culvert Installations: Fish Passage Guidelines	MOU Between Washington State Departments of Fisheries, Wildlife, and Transportation. Fish Passage Guidelines: Culvert Installations. August 1990.	REPLACED BY MOA on Construction in State Waters 6/02	N/A	
10d	Work in Watercourses	Memorandum of Understanding between WDFW, WA department of Emergency Management, Ecology, Association of Counties, Association of Cities, WSDOT Concerning Work in Watercourses. December 16, 1996	REPLACED BY MOA on Construction of Projects in State Waters 6/02	N/A	
11	Alternative Mitigation Policy – Aquatic Permits	Interagency Implementation Agreement - State of Washington Alternative Mitigation Policy Guidance for Aquatic Permitting Requirements from the Departments of Ecology and Fish and Wildlife. February 10, 2000.		http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	431.04, 436.04, 437.04, 710.03
12	Wetlands Protection & Management	Implementing Agreement between the Washington State Department of Transportation and the Washington State Department of Ecology Concerning Wetlands Protection and Management. July 1, 1993.	Dated 7/1/93. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	437.04, 610.03, 710.03

Index	Topic	Formal Title	Status	Location	Manual Section
13	Wetland Compensation Bank Program	Washington State Department of Transportation Wetland Compensation Bank Program Memorandum of Agreement. February 15, 1994. Signatories: USEPA, Corps, USFWS, NMFS, FHWA, Ecology,	Ecology rule-making in process – will take precedence over this MOA.	http://www.wsdot.wa.gov/ environment/biology/docs /wetlandMOAFinal1994.p df	437.04, 710.03
		WDFW and WSDOT, September 15, 1994.	Signatories can withdraw after giving notice of intent and waiting 30 days.		
14	Noise Methodology and Criteria	Interagency Agreement on FTA-Sound Transit-FHWA-WSDOT Noise Methodology and Criteria for Integrated Highway and Transit Projects. February 1, 2001		http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	446.04
15	Hazardous Waste Management	Implementing Agreement between the Department of Ecology and the Department of Transportation Concerning Hazardous Waste Management. April 1993.		http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	447.04, 540.08, 540.24, 610.03, 710.03
16	Agricultural & Forest	Memorandum of Understanding between the	Signed 9/30/82	http://www.wsdot.wa.gov/	454.04,
	Land Preservation	Washington State Conservation Commission and Washington State Department of Transportation - to enhance cooperation in preserving agricultural and forest lands, etc. September 1982.	Can be terminated with 45 days notice.	environment/compliance/ agreements.htm	540.08, 710.03
17	Highways over National	Memorandum of Understanding between State of	Effective date 3/22/02.	http://www.fs.fed.us/im/dir	455.04,
	Forest Lands	Washington Department of Transportation and USDA Forest Service Pacific Northwest Region - Forest Highways over National Forest Lands.	Replaces earlier MOU dated 6/17/91	ectives/field/r6pnw/fsm/15 00/1561_9b.doc	470.04, 520.13, 610.03,
		March 22, 2002	Can be terminated at any time.		710.03, 810.03

Index	Topic	Formal Title	Status	Location	Manual Section
18	Historic Properties – Nationwide	Nationwide Programmatic Agreement among the Federal Highway Administration (FHWA), the National Conference of State Historic Preservation Officers (National Conference of SHPOs), and the Advisory Council on Historic Preservation (ACHP) for Implementation of Transportation Enhancement Activities. June 11, 1997.	Signed 5/1/97. Cover memo dated 6/11/97. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	456.04
19	Historic Properties – State	Programmatic Agreement between the Federal Highway Administration, the Washington State Department of Transportation, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Officer Regarding Implementation of the Federal Aid Highway Program in Washington State. July 2000.	Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	456.04, 411.12, 820.02
20	Confederated Tribes – Umatilla Reservation	Programmatic Memorandum of Agreement among the Federal Highway Administration Washington Division, the Washington State Transportation Department South Central Region, and the Confederated Tribes of the Umatilla Reservation for Coordination and Consultation on State Transportation Activities. March 10, 2005.	Dated 12/1/04 In effect until amended or terminated by agreement of the parties.	http://www.wsdot.wa.gov/ environment/compliance/ agreements.htm	456.04
21	Stewardship of the Federal-Aid Highway Program	Washington Federal-Aid Stewardship Agreement	Signed 5/17/01 No expiration date.	http://www.wsdot.wa.gov/ TA/Reports/WA_Steward ship.pdf	300.02

Interagency Agreements – Applicability to WSDOT Process

(Number in Columns A-G is the EPM chapter where the Agreement has primary reference.)

lndex #	Formal Title	A – Planning	B- Scoping/ Programming	C – Environmental Review	D – Permitting/ PS&E	E – Construction	F- Maintenance	G – Property Management
1	Memorandum of Understanding between Washington State Department of Transportation and Federal Highway Administration – Programmatic Categorical Exclusion Approvals. May 1999.		X 310					
2	Implementing Agreement between WSDOT and Ecology Concerning Adoption of NEPA Documented Categorical Exclusions. June 1996.		X 310					
3	MOA – WSDOT and Ecology 8/4/88	Not in effect						
4	Memorandum of Agreement between the Washington State Department of Transportation and the Puget Sound Clean Air Agency Regarding the Control of Fugitive Dust from Construction Projects. October 14, 1999.			425	Х	Х	Х	
5	Signatory Agency Committee Agreement to Integrate Aquatic Resources Permit Requirements into the National Environmental Policy Act and the State Environmental Policy Act Processes in the State of Washington. September 17, 2002.		Х	X 411				
6	Working Agreement between the Seattle District, Corps of Engineers, the Washington Division, Federal Highway Administration, and the Washington State Department of Transportation. July 26, 1993.	No longer in effect	Х	Х	Х	Х		
7	Compliance Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards. November 5, 2004.				Х	X 610	Х	

Index #	Formal Title	A – Planning	B- Scoping/ Programming	C – Environmental Review	D – Permitting/ PS&E	E – Construction	F- Maintenance	G – Property Management
8	Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards, February 13, 1998.			431	Х	Х		
9	MOU Between the FHWA Region 10, Portland, Oregon, and the USEPA Region 10, Seattle Washington, and WSDOT, Olympia Washington; Sole Source Aquifer, State of Washington, June 1988			X 433				
10a	Memorandum of Agreement between Washington State Department of Fish and Wildlife and Washington State Department of Transportation Concerning Construction of Projects in State Waters. June 2002.		X	X 436	X	X	X	
10b	Memorandum of Understanding between Washington State Departments of Fisheries, Wildlife, and Transportation, Concerning Compliance With the Hydraulic Code (RCW 75.20.100 and Chapter 220- 110 WAC). August 1990	Replaced N/A						
10c	MOU Between Washington State Departments of Fisheries, Wildlife, and Transportation. Fish Passage Guidelines: Culvert Installations. August 1990.	Replace d N/A						
10d	Memorandum of Understanding between WDFW, WA department of Emergency Management, Ecology, Association of Counties, Association of Cities, WSDOT Concerning Work in Watercourses. December 16, 1996	Replaced N/A						
11	Interagency Implementation Agreement - State of Washington Alternative Mitigation Policy Guidance for Aquatic Permitting Requirements from the Departments of Ecology and Fish and Wildlife. February 10, 2000.			X 437	Х	Х	Х	
12	Implementing Agreement between the Washington State Department of Transportation and the Washington State Department of Ecology Concerning Wetlands Protection and Management. July 1, 1993.		Х	X 437	Х	Х	Х	

lndex #	Formal Title	A – Planning	B- Scoping/ Programming	C – Environmental Review	D – Permitting/ PS&E	E – Construction	F- Maintenance	G – Property Management
13	Washington State Department of Transportation Wetland Compensation Bank Program Memorandum of Agreement. February 15, 1994. Signatories: USEPA, Corps, USFWS, NMFS, FHWA, Ecology, WDFW and WSDOT, Current EPM gives date of September 15, 1994 but MOA on WSDOT web site is dated 1/15/99. (Draft amendment of October 1998 not adopted.)			X 437			X	
14	Interagency Agreement on FTA-Sound Transit-FHWA-WSDOT Noise Methodology and Criteria for Integrated Highway and Transit Projects. February 1, 2001			X 446				
15	Implementing Agreement between the Department of Ecology and the Department of Transportation Concerning Hazardous Waste Management. April 1993.			X 447	Х	Х	Х	
16	Memorandum of Understanding between the Washington State Conservation Commission and Washington State Department of Transportation - to enhance cooperation in preserving agricultural and forest lands, etc. September 1982.			X 454			Х	
17	Memorandum of Understanding between State of Washington Department of Transportation and USDA Forest Service Pacific Northwest Region - Forest Highways over National Forest Lands. March 22, 2002	X	X	X 455	X	X	X	
18	Nationwide Programmatic Agreement among the Federal Highway Administration (FHWA), the National Conference of State Historic Preservation Officers (National Conference of SHPOs), and the Advisory Council on Historic Preservation (ACHP) for Implementation of Transportation Enhancement Activities. June 11, 1997.	N/A done in state IA		456				

lndex #	Formal Title	A – Planning	B- Scoping/ Programming	C – Environmental Review	D – Permitting/ PS&E	E – Construction	F- Maintenance	G – Property Management
19	Programmatic Agreement between the Federal Highway Administration, the Washington State Department of Transportation, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Officer Regarding Implementation of the Federal Aid Highway Program in Washington State. July 2000.		X	X 456		X		X
20	Programmatic Memorandum of Agreement among the Federal Highway Administration Washington Division, the Washington State Transportation Department South Central Region, and the Confederated Tribes of the Umatilla Reservation for Coordination and Consultation on State Transportation Activities. March 10, 2005.	Х	X 310	X	X	Х	Х	X
21	Washington Federal-Aid Stewardship Agreement	<u>X</u>	<u>X</u> 300	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>

Summary of Environmental Commitments in Interagency Agreements

Appendix E-3

Phase of WSDOT Process

Planning
Scoping/programming
Design/Environmental Review
Permitting/PS&E
Construction
Maintenance and Operations
Property Management

Chapter number is location of primary description in EPM.

1 Programmatic CEs (5/99) – Chapter 310

General

Programmatic approach, agreeing in advance to classify as categorical exclusions any actions identified in 23 CFR 771.117, as long as criteria in the regulations and conditions listed in the MOU are met.

Scoping/Programming

Determinations made by WSDOT under this blanket classification do not require further approvals by FHWA, and will be documented in the Project Summary. Environmental classification of all projects will be identified on project authorization submitted to FHWA but documentation for projects identified as CEs under this MOU does not need to be submitted

2 Adoption of NEPA DCEs (9/96) - Chapter 310

General

Ecology agrees to concur with adoption of WSDOT's DCE documentation (Environmental Classification Summary) provided that WSDOT include specified elements of the SEPA Environmental Checklist not included in the ECS form.

Scoping/Programming

WSDOT must determine that the DCE package meets review standards in WAC 197-11-630; submit the completed ECS with a DNS in Ecology format, including specified items from the SEPA checklist; and include a 15-day public/agency comment period including publishing notice of adoption and DNS and distributing the adoption package to permitting agencies.

3 WSDOT/Ecology Coordination (8/88) – Not in Effect

General

MOA signed 8/88 – WSDOT and Ecology agree to coordinate and cooperate re information on permitting. Implementing Agreements are pursuant to this MOA. Will add MOA as exhibit in 2nd draft and add references in applicable chapters.

4 Fugitive Dust (10/99) – Chapter 425

General

Establishes a cooperative process to minimize fugitive dust emissions from WSDOT project sites.

Permitting/PS&E

WSDOT will require appropriate use of BMPs for fugitive dust control on all WSDOT projects (see **Section 425.05**(7)); and evaluate the construction plans and specifications to identify possible fugitive dust producing activities.

Construction

WSDOT will ensure that PEs/site managers implement BMPs and observe and report fugitive dust problems.

Maintenance

Maintenance of WSDOT sites will share the common goal of controlling fugitive dust.

Signatory Agency Committee (SAC) Agreement to Integrate Aquatic Permit Requirements into NEPA/SEPA Process (9/02) – Chapter 411

General

Applies to all WSDOT projects requiring an individual Corps Section 404 or Section 10 permit and FHWA action on a NEPA EIS. Signatories aim to integrate conditions of aquatic related permits and approvals, with the NEPA/SEPA processes at the planning, programming and project development stages. Priority is to avoid adverse impacts to waters of the U.S. and Washington including wetlands, other aquatic resources, and associated sensitive species. The SAC process involves requests for resource agency "concurrence" at critical point in the NEPA process. The SAC Agreement was revised in September 2002 adding process improvements, a full time facilitator and a defined Issue Resolution process.

Planning/Programming

WSDOT will request signatory agencies to concur with the transportation purpose and need served by a project. WSDOT will submit an "early warning" packet to SAC members 30 days prior to the project's first SAC presentation.

Design/Environmental Review

- ➤ Under the SAC Agreement, WSDOT will request regulatory/resource agency involvement early in the NEPA EIS process.
- ➤ WSDOT will request signatory agencies to concur with project alternatives to be evaluated in the DEIS.
- ➤ WSDOT will request Corps, USFWS, USEPA and NMFS to concur with the NEPA/SEPA preferred alternative/apparent Section 404 least environmentally damaging practicable alternative and detailed mitigation plan. WSDOT will request Ecology and WDFW to concur with NEPA/SEPA preferred alternative and detailed mitigation plan.
- ➤ WSDOT will provide information necessary for agencies to identify least environmentally damaging practicable alternative and proposed mitigation early in the joint NEPA/SEPA EIS process, and ensure that WSDOT responds to agency comments within the timeframes of the agreement.

6 Working Agreement – Corps Permit Process (7/93) – Not in Effect

7 Compliance Implementing Agreement – Water Quality Standards (11/04) – Chapter 431

General

Purpose is to assist in obtaining and maintaining compliance on Ecology issued Orders, certifications, approvals, implementing agreements, and with the WA WQ standards. Defines elements to increase compliance for WSDOT and WSDOT contractors. WSDOT is to develop a statewide compliance program by 12/04; general requirements are:

- ➤ Include improved compliance with all laws, IAs, 401 WQ certifications and 402 construction stormwater permits.
- ➤ Develop and implement a commitment tracking system to identify all project commitments made during planning, NEPA/SEPA, design, and permitting.
- Track and report non-compliance events for periodic assessment of statewide compliance performance for construction, maintenance and ferry service operations.

Other elements of required program are summarized in appropriate phase of WSDOT process (Col. D-F).

Permitting/PS&E

Ensure that all environmentally sensitive areas, mitigation areas and wetland buffers are fenced.

Construction

- ➤ All project commitments clearly communicated to contractor, construction project office staff and supporting design offices.
- > Fences maintained throughout construction.
- ➤ Environmental inspector, trained in certification conditions and permit requirements, mitigation requirements and WSDOT compliance procedures, is assigned and available to each project site to ensure compliance with conditions of 401 certification and NPDES permits.
- ➤ WSDOT PEs notify Ecology 10 days prior to commencing any work other than fencing.
- ➤ WSDOT PEs consult with WSDOT environmental inspectors to ensure proposed work in env. sensitive areas, mitigation areas and wetland buffers is in compliance with permit conditions; if not, notify resource agencies.
- Contractor required to submit a detailed work plan to be approved prior to work in sensitive areas and mitigation sites; all work in wetland mitigation areas be verified by WSDOT to ensure permit conditions are met.
- Ensure that all environmental commitments have been achieved prior to completion of the process.

Maintenance and Operations

Ensure that maintenance and operations staff have received a copy of and understand all long-term compliance expectations including mitigation site monitoring and maintenance.

8 Implementing Agreement – Compliance with Water Quality Standards (2/98) – Chapter 431

General

Purpose to assist WSDOT in maintaining compliance with Washington aquatic laws and regulations. For use by WSDOT and WSDOT contractors. Generally, WSDOT will

- ➤ Comply with WQ criteria in WAC 173-201A and RCW 90.48, tribal standards within reservation boundaries, and other agency regulations
- For work in or near water, comply with conditions within this agreement and other BMPs and NPDES permit requirements.

Permitting/PS&E

- ➤ If a discharge of pollutants is expected, submit applications for NPDES permit, or JARPA for Section 401 WQ certification when a Corps Section 404 permit is required.
- Require contractors to comply with conditions of this agreement and any other conditions to ensure WQ compliance. Attach conditions of this agreement to contract documents for projects in or near water, make sure contractors are aware of conditions prior to bidding.

Construction

- Notify Ecology prior to starting work on a project that is large, contentious or when a significant amount of work in the water will take place (so Ecology can respond to any citizen complaints).
- Review conditions with selected contractor. Copy of agreement on the job site at all times.

9 MOU – Sole Source Aquifer (6/88) – Chapter 433

General

Deals with review of projects on federal aid highways which may affect water quality of designated sole source aquifers. Specifies criteria against which projects will be evaluated and procedures to be followed by FHWA and USEPA in conducting project evaluation and formal review in Washington. Projects will be constructed so as not to cause exceedance of maximum contaminant levels (WAC 248-54-175).

Design/Environmental Review

USEPA will be given an early opportunity to participate in development and review of environmental documents for projects within the sole source aquifer area that are documented by an EIS or EA, or CEs that involve:

- > Drainage wells, detention or retention basins or new wetland areas;
- ➤ Addition or widening of lanes or opening of new material sources which could result in contamination
- Rest areas, weigh stations or scenic overlooks with sewage disposal stations
- ➤ Landscape construction projects if pesticides, herbicides and fertilizers use any of compounds listed in Attachment D.

10a MOA between WDFW and WSDOT – Construction Projects in State Waters (6/02) – Chapter 436

Replaces:

10b – MOU between WDFW and WSDOT – Compliance with Hydraulics Code (8/90)
10c – MOU WDFW and WSDOT – Fish Passage Guidelines – Culvert Installations – 8/90
10d – MOU WDFW, Dept of Emergency Management, Assn of Counties, Assn of Cities, Ecology and WSDOT – Work in Watercourses (12/96)

General

Describes how WSDOT and WDFW will cooperate to ensure that state transportation projects protect fish life and habitats, and ensure consistent and uniform application of RCW 77.55 (construction in state waters) and WAC 220-110 (hydraulic code rules). Other objectives include: cooperate in identifying and evaluating potential impacts and reach

accord in mitigation early in project design; provide a framework within which HPAs can be developed and approved to give WSDOT flexibility in planning and programming maintenance, repair, mitigation and minor improvement projects while reducing permit workload and properly protecting fish life and habitat.

Scoping/Programming

Annual meetings to be arranged by WSDOT, project review procedures specified for each:

- ➤ Capital improvement projects: between Jan 15 and March 15; one meeting in each WSDOT region in western WA and one meeting in eastern WA.
- ➤ Planned maintenance activities: in spring, arranged by WSDOT maintenance area superintendents, with WDFW area habitat biologist.
- Ferries: to discuss upcoming ferry maintenance, repair and construction projects.
- Appendix C states that WSDOT is to include in the project definition a recommended conceptual design approach to remove a barrier to fish passage where barrier is identified in Subprogram 14 deficiency list; priority for barrier removal to be done statewide; all barriers to be removed by 2021.

Design/Environmental Review

- ➤ Coordinate and establish agreement on design and any necessary mitigation prior to submitting final HPA application submittal (can be at annual meeting).
- ➤ For any project anticipated to require mitigation for unavoidable impacts, WSDOT to send adequate information to WDFW on project design, method of construction, and mitigation, so potential design and mitigation issues can be addressed before submitting the application.
- Appendix D is reference sources for transportation project design guidelines to eliminate or minimize impacts to fish life.

Permitting/PS&E

- ➤ WSDOT submits HPA application to WDFW when final project plans are near completion. Appendix A gives HPA application requirements.
- ➤ If application is complete but does not fully mitigate direct and indirect impacts, WDFW will notify WSDOT of intent to deny permit after 45 day review period. WSDOT can ask to suspend the review period pending additional negotiations.
- Appendix E gives conditions for issuance of Standard, Expedited and Emergency HPAs.
- Appendix G is the WACs for formal and informal appeals.

Construction

- WSDOT will train project inspectors on how to monitor projects for HPA compliance.
- ➤ If project design changes or circumstances arise requiring change in design or construction, WSDOT contacts WDFW to discuss potential modifications to HPA.

Maintenance and Operations

- > Text includes procedures for emergency/disaster maintenance and repair.
- > Appendix F is maintenance guidelines.

Interagency Agreement - Alternative Mitigation Policy Guidance (2/00) - Chapter 437

General

WSDOT agrees to comply with consensus on mitigation policy among agencies responsible for aquatic resource mitigation. Applies to Ecology and WDFW in issuing or reviewing permits, documents, appeals or compensation agreements under Clean Water Act, Shoreline Management Act or Hydraulics Code. Applicants must demonstrate to the permitting agencies that impacts are unavoidable, that steps will be taken to reduce impacts, and mitigation will result in a net gain to the resources.

Design/Environmental Review

Guidance describes the criteria and guidelines for compensatory mitigation and other requirements including use of best available science, considering cumulative impacts, and mitigating for losses over time including requirements below and under Permitting/PS&E, Construction, and Maintenance and Operations.

- Mitigation plans should be discussed with the lead permitting agency prior to preparing a detailed mitigation plan.
- Document lists minimum content of mitigation plans for projects with significant impacts.

Permitting/PS&E

Permitting agencies will determine project impacts, significance of impacts, type and amount of compensation, and level of replacement functions based on best available information including applicants' plans and specifications and studies required and approved by the agencies.

Construction

Mitigation measures are an integral part of a construction project and are to be completed before or during project construction.

Maintenance and Operations

- Monitoring is required. If mitigation is failing and corrective actions not successful, applicant must contact permitting agencies and use an adaptive management approach to achieve stated performance standards.
- > Compliance monitoring may be performed by agencies.
- Mitigation site to be protected permanently or at least for the life of the project.

Implementing Agreement – Wetlands Protection and Management (7/93) - Chapter 437

General

Clarifies and promotes interagency coordination in wetland protection and management. The two agencies determine policies of mitigation, preservation, mitigation banking and training programs.

Scoping/Programming

Biennial project review meetings – to discuss potential environmental impacts, including wetland impacts, of proposed projects and provide information on affected resources that may influence project schedule and budget. Held in even-numbered years in each WSDOT region, attended by HQ ESO staff, regional project offices, Ecology wetland and permit coordination and Shoreline staff.

Design/Environmental Review

- ➤ WSDOT submits wetland inventory report to Ecology when following permits are required: Section 404 individual permit, Section 404 nationwide permit when individual WQ certification is needed, or Shoreline.
- ➤ Design Alternatives meeting as needed to discuss specific projects and revisit projects discussed earlier. WSDOT wetland report sent to Ecology before meeting. Appendix C WSDOT guidelines for wetland reports
- ➤ WSDOT submits preliminary wetland mitigation plan with wetland report and alternatives analysis to Ecology wetlands staff; copy to Ecology permit coordination unit if Section 404 permit is required. Appendix D WSDOT guidelines for wetland mitigation plans. Appendix E Guidelines for compensation mitigation ratios. Describes criteria for mitigation [replaced/updated by 2/00 Alternative Mitigation Policy IA?]

Permitting/PS&E

- ➤ Details steps WSDOT and Ecology will take if Individual Section 404 permit or nationwide Section 404 permit with Individual 401 certification is needed
- ➤ Pre-application meeting to review preliminary mitigation plan development and submittal of information needed by Corps and other agencies to make permit decisions.

Construction

➤ Pre-construction conference – as needed to discuss construction techniques for wetland creation, restoration or enhancement. Primarily for benefit of contractor.

Maintenance and Operations

- Monitoring the mitigation by systematic evaluation of the development of a constructed wetland to determine success.
- ➤ Annual field review and evaluation of WSDOT mitigation sites.

13 MOA – Wetland Mitigation Banking (2/94) – Chapter 437

General

Establishes principles and procedures for establishing, implementing, and maintaining the WSDOT wetland compensation bank program. Covers identification and selection of candidate wetland compensation bank sites, development of the sites, maintenance, inspection and monitoring, and assessment. Also proposals to compensate for adverse impacts to wetlands by using credits available at a compensation bank site.

Provides offsite compensation in advance of adverse impacts to wetlands after all measures have first been taken to avoid impacts, reduce impacts, repair/restore affected wetlands, reduce or eliminate impacts over time by maintenance and preservation, and provide inkind onsite compensation. Appendix A defines this sequence.

Most of agreement is about selecting the sites – not applicable to specific projects?

Appendix B elements of a development plan for a candidate compensation bank site

Also system of currency, credits and debits – seems not applicable to specific projects?

Design/Environmental Review

Criteria for using a wetland compensation bank site

Appendix B – elements of a Wetland Impact Report

Appendix D – public notice describing, among other things, the WSDOT activity, wetlands impacted, and justification for using the compensation bank site.

Maintenance and Operations

Requirements for inspections and monitoring.

- Semi-annual inspections for five years after as-builts accepted, and annually thereafter.
- ➤ WSDOT will use inspection checklist in Appendix E to document inspections.
- Appendix F is elements of a monitoring plan and report, includes monitoring checklist
- ➤ WSDOT retains responsibility for inspections if management and maintenance of the site is transferred to another agency or entity.

14 Noise Methodology and Criteria (2/01) – Chapter 446

General

Agrees on methodology and criteria to be used for integrated roadway and highway projects in Puget Sound.

Design/Environmental Review

For roadways to the intersection with the physical boundary of the point source (e.g. curb line of a park and ride lot) use FHWA line source methodology and criteria. For the point source, use FTA methodology and criteria from FTA's Transit Noise and Vibration Assessment. In overlapping areas use FHWA line source methodology and criteria.

15 Hazardous Waste Management - Chapter 447

General

Ecology and WSDOT agree to cooperate in issues related to hazardous waste management and reduction, site remediation, and regulatory compliance. WSDOT commits itself to full compliance with hazardous waste management and cleanup laws and regulations.

Design/Environmental Review

As site conditions/history warrant, WSDOT will conduct environmental site assessments of all property involved in ROW acquisition to discover possible hazardous waste contamination requiring remedial action, and report discovery of contamination to Ecology.

Permitting/PS&E

- ➤ If WSDOT acquires a contaminated site, it will take steps needed to identify and clean up the contamination as budgets allow.
- ➤ WSDOT may proceed with an expedited independent cleanup on a portion of a contaminated site which adversely effects a construction schedule. WSDOT will prepare a technical report prior to an independent cleanup.

Construction

- ➤ If an unanticipated leaking underground storage tank (LUST) is encountered during construction, WSDOT will follow Ecology guidance in *Remediation of Releases from Underground Storage Tanks*.
- ➤ If there is an imminent threat to public health or environment due to site contamination, WSDOT will use resources such as an on-call hazardous waste contractor to stabilize the situation.
- ➤ WSDOT will seek to minimize the use and generation of hazardous materials in its construction activities and those of its contractors.

Maintenance and Operations

- ➤ WSDOT will conduct hazardous waste audits of its buildings and facilities on a regular basis, and will identify opportunities for hazardous substance reduction and recycling.
- > Specifies WSDOT responsibilities for oil and hazardous substance spills.
- ➤ WSDOT will follow Washington manifest requirements when manifesting hazardous wastes.

16 Agricultural and Forest Land Preservation (9/82) – Chapter 454

General

Intended to enhance cooperation in preserving agricultural and forest land, to prevent and treat erosion adjacent to or associated with farmlands and state highways, and maintain drainage ways and reclaim abandon roadways for agricultural purposes.

Design/Environmental Review

Contact local conservation districts during the design stage to coordinate concerns and recommendations.

Send draft EISs and EAs to conservation districts near the project area for review and comment; review comments and make appropriate revisions, considering acceptable economic tradeoffs in roadway alignments.

Maintenance and Operations

Work with conservation districts through county weed control boards or appropriate county officials to control noxious weeds.

17 Highways over National Forest Lands – Chapter 455

General

Documents mutual understanding regarding coordination of transportation activities, particularly highways on national forest land.

Planning

- ➤ WSDOT will consult with USFS during development of WSDOT six year Highway Construction Program.
- ➤ WSDOT and the USFS will jointly develop a multi-year Forest Highway Program.

Scoping/Programming

- ➤ WSDOT will coordinate with USFS in developing Public Lands Highway Program proposals.
- ➤ WSDOT will coordinate with USFS at project inception, agreeing on needed environmental documents and lead agency responsibility.

Design/Environmental Review

- ➤ WSDOT and USFS will cooperate in developing a single set of environmental documents for each project and jointly seek public involvement.
- > Draft and final environmental documents will be circulated to each agency for review before public distribution.

Permitting/PS&E

- ➤ WSDOT and USFS will coordinate designs and participate in field reviews.
- ➤ For rights-of-way, the standard USDOT easement deed will be used. Specifies procedures for requesting the easement.
- A special use permit is required for use or occupancy of national forest system lands for other highway purposes outside the easement area.

- ➤ WSDOT and USFS will agree on requirements to be provided in plans and specifications and which will be in the special provisions.
- ➤ WSDOT will submit proposed right of way and construction plans and specifications to USFS for review and approval.

Construction

- ➤ WSDOT will inform USFS of project advertisement and award.
- > Significant changes in ROW during construction will require an amendment to the recorded easement deed.
- ➤ WSDOT will notify and obtain approval from USFS for any changes that will affect national forest lands.
- ➤ WSDOT will notify USFS when project nears completion; USFS will indicate if they want to participate in the final review.

Maintenance and Operations

- ➤ WSDOT will coordinate with USFS on maintenance activities that might affect national forest lands, including: removal/disposal of dangerous trees, disposal of slash or other waste, material source or storage, changes to drainage patterns, snow and avalanche control, rock scaling.
- ➤ WSDOT will work with USFS to develop roadside vegetation management plans.
- ➤ WSDOT will furnish and maintain all standards highway signs, including guide signs requested by the USFS.
- ➤ WSDOT will coordinate with USFS for third party occupancy or use by utility facility installations on WSDOT easements.
- > Specifies responsibilities for signage for maintenance or emergency activities.
- Specifies responsibilities for control of access to WSDOT easements by USFS or its permittees.

18 Historic Properties – Nationwide (6/97) – Chapter 456

General

Agreement is intended to reduce the time spent by state transportation agencies in implementing transportation enhancement activities, including historic preservation projects. However, the agreement is not mandatory; state agencies are authorized to develop their own agreements, which WSDOT has done (see below).

19 Historic Properties State (7/00) - Chapter 456

General

Programmatic agreement for implementing Section 106 requirements for federal-aid highway projects in Washington.

Scoping/Programming

- Agreement lists types of routine WSDOT projects that do not require Section 106 consultation with the SHPO.
- ➤ For a proposed project, WSDOT defines the area of potential effect, following consultation with appropriate tribal governments, local governments and other appropriate parties.
- ➤ WSDOT identifies all historic properties and cultural resources within the area of potential effect, and evaluates their eligibility for listing in the National Register of Historic Places; specific provisions apply to historic bridges.
- > Specifies procedures depending on whether WSDOT determines there is a finding of no historic properties affected, no effect, or no adverse effect.

Design/Environmental Review

If there is adverse effect, WSDOT notifies FHWA and FHWA ensures that the Section 106 process is completed in accordance with 36 CFR 800.6. Bridge replacement projects requiring a change in alignment beyond previous construction disturbance, and bridge replacements in historic districts shall undergo individual review under 36 CFR 800.

Construction

Council and SHPO may monitor activities carried out pursuant to this agreement.

Property Management

Specifies procedure for sale or demolition of Category 2 bridges (constructed prior to 1940 but not eligible for the national register).

Confederated Tribes of Umatilla Reservation – Coordination and **Consultation – Chapter 456**

General

Programmatic agreement to ensure coordination and cooperation with the Confederated Tribes of the Umatilla Reservation (CTUR) on all applicable WSDOT undertakings within CTUR ceded lands in the state of Washington that potentially affect historic and/or traditional cultural properties. The agreement includes consultation for federally aided projects subject to Section 106 of the National Historic Preservation Act, and coordination for non-federal activities. Consultation and coordination are to begin at the earliest possible stage and continue through planning, scoping, design, construction, and operation and maintenance.

Washington Federal-Aid Stewardship Agreement – Chapter 300

[A summary of the environmental commitments in this agreement (or any successor agreement) will be provided in the next EPM update.]

Note: Abbreviations are listed at the end of this table.

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
FEDERAL PERMIT	S AND APPROVALS			
National Environmental Policy Act (NEPA)	FHWA and WSDOT	Activities with a federal nexus (i.e. upon federal lands, federally funded, or requiring federal permits or approvals) trigger NEPA procedural and documentation requirements.	310.07, 410-480	42 USC 4321, 23 CFR 771, 40 CFR 1500-1508
Endangered Species Act (ESA)	NOAA Fisheries USFWS	Activities with a federal nexus (i.e. upon federal lands, federally funded, or requiring federal permits or approvals) trigger ESA procedural and documentation requirements.	431, 436, 437, <u>520.08,</u> 520.09, 710.04	16 USC 1531-1543
Wetlands Report	Corps	Impact to lowlands covered with shallow and sometimes temporary/intermittent waters (e.g., swamps, marshes, bogs, sloughs, potholes).	437	49 USC 1651, EO 11990 (Protection of Wetlands)
Wild and Scenic Rivers	FHWA and Affected Agency	No specific permits are required for projects in wild and/or scenic river corridors, but water quality permits listed in Section 431.06 may apply.	453, 520.12	16 USC 1271
Farmland Conversion	NRCS Counties and Cities	NRCS Form AD1006 approval may be required if project entails conversion of farmlands. Local grading permits may also be required.	454	7 USC 4201, 7 CFR 650
U.S. Dept of Transportation Act - Section 4(f)	FHWA, SHPO, and Affected Agency with Jurisdiction over the site	Use of park and recreation lands, wildlife and waterfowl refuges, and historic sites of national, state, or local significance triggers Section 4(f) procedural and documentation requirements.	411.12, 455	49 USC 1651, Sec. 4 (f), 23 CFR 138
Land and Water Conservation Fund Act - Section 6(f)	FHWA and Affected Agency (WSDOT)	Use of lands purchased with <u>LWCFA</u> funds triggers Section 6(f) procedural and documentation requirement. In Washington <u>LWCFA</u> funds are distributed by the Interagency Committee for Outdoor Recreation.	455, 520.11	LWCFA
Historic Preservation Act - Section 106	OAHP/SHPO	Potential impacts to historic or archaeological properties trigger Section 106 procedural and documentation requirements.	411.12, 456, 520.10	16 USC 470, Sec.106, 36 CFR 800, RCW 43.51.750
Clean Water Act - Section 404 Individual and Nationwide Permits	Corps, USEPA, USCG	Discharging, dredging, or placing fill material within waters of the US, drainage channels with a direct connection to surface waters, or adjacent wetlands.	431, 432, 437, 452, 453, 520.02, 620.04, 710.04	CWA Sec 404, 33 USC 1344, 33 CFR 330.5 & 330.6
Rivers and Harbors Act - Section 10	Corps	Obstruction, alteration, or improvement of any navigable water (e.g., rechanneling, piers, wharves, dolphins, bulkheads, buoys).	431, 432, 452, 520.03, 710.04	33 CFR 322, 33 CFR 403

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
General Bridge Act (Rivers and Harbors Act - Section 9)	USCG	Bridges and causeways in navigable waters, including all tidally-influenced streams used by boats over 21 feet in length.	431, 432, 452, 453, 520.04	33 USC Sec. 9, 33 USC 11, 33 CFR 114 & 115, FHWA Sec 123(b)
Archaeological Resources Protection Permit	Tribes Federal landowners, e.g. BLM, Corps, NPS	Excavation or removal of archaeological resources from tribal or federal land.	456, 520.05	43 CFR 7.6 – 7.11
Authorization for Use of Federal Land	USFS BLM	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on federal lands.	520.13, 620.02, 810.06	36 CFR 251, 43 USC 1761-1771, 43 CFR Parts 2800 and 2880
Airport/Highway Clearance	FAA (Federal)	Airspace intrusion by a highway facility (i.e. proposed construction in the vicinity of public use or military airports) may require FAA notification.	460, 520.13	FHPM 6-1-1-2, FAA Regs. p.77
STATE PERMITS A	ND APPROVALS			
State Environmental Policy Act (SEPA)	Ecology	Any activity not categorically exempt triggers SEPA procedural and documentation requirements.	410-480	RCW 43.21C, WAC 197-11, WAC 468-12
Clean Water Act - Section 401 Water Quality Certification	Ecology USEPA (federal and tribal lands) Puyallup and Chehalis	Activity requiring a federal permit/license for discharge into navigable waters.	431, 432, 437, 452, 453, 540.02	CWA Sec 401, RCW 90.48.260, WAC 173-225
Coastal Zone Management Certificate	Ecology	Applicants for federal permits/licenses are required to certify that the activity will comply with the state's Coastal Zone Management program (Shoreline Management Act).	431, 432, 437, 452, 540.03, 710.04	CZMA Sec 6217, 16 USC 1451 et seq., 15 CFR 923-930, RCW 90.58
Clean Water Act - Section 402 NPDES Permits	Ecology	Discharge of pollutants into state waters, including wetlands and groundwater. Municipal Stormwater Discharge, Industrial Stormwater, Construction Stormwater, or Sand/Gravel permits may be required, depending on the activity.	See below.	See below.
NPDES Construction Stormwater Permit (General and Individual)	Ecology	All soil disturbing activities where construction activity will disturb one or more acres and will result in discharge of stormwater to a receiving water, and/or storm drains that discharge to a receiving water. Also required if detention facilities will be constructed to retain stormwater on site.	431, 433, 540.04, 620.04, 710.04	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Municipal Stormwater Permit (General)	Ecology	If construction activities and/or long-term operation and maintenance of its facilities result in stormwater discharge to a municipal separate storm sewer system.	431, 433, 540.05	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Sand and Gravel Permit (General and Individual)	Ecology	Activities involving the following SIC codes: 1442 Construction Sand and Gravel 2951 Asphalt Paving Mixtures and Blocks 3273 Ready-Mixed Concrete	431, 433, 540.06	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
NPDES Industrial Stormwater Permit (General and Individual)	Ecology	If stormwater from WSDOT's facility does not discharge to ground and/or to a combined storm/sanitary sewer.	431, 433, 540.07	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
Other NPDES Permits (Programmatic) – Routine WSDOT Programs	Ecology	Washing and painting of bridges and ferry terminals, nuisance aquatic plant and algae control, noxious aquatic plant control, aquatic mosquito control.	431, 433, 540.08	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
State Waste Discharge Permit (SWDP)	Ecology	Discharge or disposal of municipal and industrial wastewater into groundwater, or discharge industrial wastewater to an NPDES-permitted wastewater treatment plant.	431, 433 540.12	RCW 90.48, WAC 173-226
Isolated Wetlands Administrative Order	Ecology	Activity that may cause pollution, including discharge of fill or other alteration of the physical, chemical, or biological properties of isolated wetlands.	437, 540.13	RCW 90.48
Underground Injection Control	Ecology	Injection well that may contaminate drinking water.	433 540.14	40 CFR 144, RCW 43-21A.44, WAC 173-218
Hydraulic Project Approval	WDFW	Projects that will use, divert, obstruct, or change the natural flow or bed of any state waters (e.g., culvert work, realignment, bridge replacement).	431, 432, 436, 447, 452, 453, 540.15, 620.05, 710.04	RCW 77.55.100, WAC 220-110
Fish Habitat Enhancement Project Application	WDFW	Streamlined process for projects designed to enhance fish habitat, application accompanies Hydraulic Project Approval.	436, 540.15	See above.
Aquatic Lands Use Authorization	WDNR Harbor Line Commission	Rights-of-way or fills on, over, or across beds of navigable waters. If waters are part of harbor area, easements may also needed from harbor line commission.	436, 437, 540.16 710.04	RCW 79.90, WAC 332-30, RCW 47.12.026
Easement on Public Land	WDNR	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on state-owned land.	455, 540.17 620.02, 810.06	RCW 79.36
Forest Practices Application	WDNR	Road construction, pits, pesticide use, and other specified activities on public or private forest land (i.e., land capable of supporting merchantable timber).	455, 540.18	RCW 76.09, WAC 222
Surface Mining Reclamation Permit	WDNR	Permit with approved reclamation plan required for surface mining (pit and quarry sites) if more than 3 acres are disturbed at one time or pit walls are more than 30 feet high and steeper than 1:1.	420, 455, 540.19 620.02	RCW 78.44
Survey Monument Removal	WDNR	Temporary removal or destruction and replacement of a survey monument.	451, 540.20	RCW 58-24, WAC 332-120
On-Site Sewage System	DOH Ecology Local health authorities	Construction/modification of domestic/industrial wastewater facilities (e.g., sewer relocation, rest area construction). Systems with design flow capacity >14500 gpd are regulated by Ecology. Systems with design flow capacity of 3,500-14,500 gpd are regulated by DOH. Systems with design flow capacity of less than 3,500 gpd are regulated by local health authorities.	431, 432, 433 540.12 (Ecology) 540.21 (DOH) 550.10 (Local)	RCW 90.48.110, WAC 246-272, WAC 173-240

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
Archaeological Excavation and Removal Permit	OAHP	Digging, excavating, altering, defacing, or removing archaeological objects or sites; historic archaeological resources; or native Indian graves, cairns, or painted or glyptic records.	456, 540.22	
Air Quality Permit	Ecology, Clean Air Agencies, fire protection agencies	Permit allows temporary air pollution above allowed levels. Includes land clearing burns, demolition of structures containing asbestos, and operation of portable asphalt batching equipment, rock rushers, Portland cement plants. Permit may limit the type, size, or timing of temporary pollution.	425, 540.23	RCW 70.94
RCRA Hazardous Waste Tracking Form	Ecology	A WAD tracking number from Ecology is required for transport, storage, transport, or disposal of dangerous waste.	447, 540.24, 710.04	WAC 173-303
RCRA Dangerous Waste Permit	Ecology	Facilities that store, treat, and/or dispose of dangerous waste.	447, 540.24	RCRA
Underground Storage Tank Notification	Ecology	Installation or removal of an underground storage tank; requires notification to Ecology.	447, 540.24	RCRA
MTCA Hazardous Materials Spills	Ecology	Spill or release of hazardous substance with potential to impact human health or the environment; must be reported to Ecology.	447, 540.24	MTCA
Independent Remedial Action	Ecology	Conducting an independent remedial action; report must be submitted to Ecology.	447, 540.24	MTCA
Hazardous Waste Monitoring Well	Ecology	Long term monitoring of hazardous waste movement or contamination levels; notice of intent must be submitted to Ecology.	447, 540.24	RCW 18.104, WAC 173-160, WAC 173-162, WAC 173-303
Water Right Permit	Ecology	New or changed water right may be needed for withdrawal of more than 5,000 gpd of groundwater, or for any amount of surface water; e.g. for construction of a new facility such as a rest area or maintenance facility, or for diversion of surface water to create a wetland mitigation site.	433, 540.25	RCW 18.104, 43.27A, 90.03, 90.14, 90.16, 90.44 and 90.54 WAC 173-100, 173-136, 173-150, 173-154, 173-166, 173-500 and 173-590, WAC 508-12
Public Water System Approval	DOH or local health department	Construction of a new facility such as a rest area, maintenance facility, or ferry terminal that furnishes water to two or more service connections for human consumption and domestic use, including governmental, commercial, industrial or irrigation.	433, 540.25	RCW 43.20A, WAC 246-290, WAC 246-291, WAC 246-294, 42 USC Chapter 6A, 40 CFR 141 and 143.
Dam Construction Permit	Ecology	Constructing, modifying, or repairing a dam that captures and stores at least 10 acre-feet of water or liquid waste; e.g. a highway project adjacent to a reservoir requiring modification of the embankment.	540.25	RCW 90.03.350, WAC 173-175

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
Reservoir Permit	Ecology	Reservoir permit is required when any dam or dike is used to store water to a depth of 10 feet or more at its deepest point, or retains 10 or more acrefeet of water. Also applies to reservoir adjacent to a stream channel, wetland or wildlife mitigation sites where an impoundment of water is proposed.	540.25	RCW 90.03.370, WAC 173-175, WAC 508-12
Temporary Exceedance of Water Quality Standards	Ecology	Shoreline or in-water work resulting in a temporary increase in turbidity associated with the disturbance of sediments within a defined mixing zone; also applies to concrete pouring.	431, 432, 447, 452, 453, 540.25	WAC 173-201A.110
Soil Boring – Notice of Intent	Ecology	All drilling activities, including geotech soil borings, monitoring/resource protection wells, and developing or decommissioning water wells.	540.25	RCW 18.104, WAC 173-160, WAC 173-162
Beaver Trapping on WSDOT Property	WDFW	Trap beavers that block culverts with their dam-building activity and threaten public safety through the flooding and erosion that follow.	540.25	
LOCAL PERMITS A	AND APPROVALS			
Shoreline Substantial Development, Conditional Use, and Variance Permits	Ecology Cities and Counties	Development, construction, and uses with a fair market value of \$5,000 and greater; any development materially interfering with public use of "shorelines" which are marine waters, water areas 20 acres and larger, streams over 20 cfsmaf, wetlands, and land within 200 ft of the shoreline.	431, 432, 437, 447, 452, 453, 550.02, 710.04	RCW 90.58, WAC 173-15 through 173-27, City and County ordinances
Floodplain Development Permit	Ecology Counties and Cities	Any structure or activity that may adversely affect the flood regime of streams within the flood zone, or land areas located below the designated 100-year floodplain elevation.	432, 550.03	RCW 86.16, WAC 173-158, City and County ordinances
Critical/Sensitive Areas Ordinances	Counties and Cities	Projects impacting areas defined as "critical" by counties and cities under the GMA, including wetlands, aquifer recharge areas, wellhead protection areas, frequently flooded areas, geographically hazardous areas, fish and wildlife habitat, and conservation areas.	420, 431, 436, 437, 451, 550.04, 710.04	RCW 90.58, RCW 36.70A, City and County ordinances
Clearing, Grading and Building Permits	Counties and Cities	Clearing and grading of land for development with impacts outside WSDOT right of way; includes connecting streets, frontage roads, etc. Construction of any building for human habitation; includes maintenance facilities.	420, 451, 454, 460, 550.05, 710.04	RCW 36.21.080, RCW 36.70, RCW 36.70A, RCW 19.27, WAC 51-50, City and County ordinances
Land Use Permit	Counties and Cities	Required land use permit examples are conditional use, unclassified use permit, or variance.	550.06	City and County ordinances
Noise Variance	Counties and Cities	Construction and maintenance activities during nighttime hours may require a variance from local noise ordinances. Daytime noise from construction is usually exempt.	446, 550.07	RCW 70.107, WAC 173-60, WAC 173-62

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
Detour and Haul Road Agreements	Counties and Cities	Use of city streets or county roads for the purpose of detouring traffic or hauling certain materials associated with a highway improvement project.	550.10	City and County ordinances
On-site Sewage System under 3,500 gpd	Local health authorities	Discharge of on-site sewage, less than 3,500 gpd.	550.10	

Abbreviations:

BLM	Bureau of Land Management (Federal)	NMFS	National Marine Fisheries Service (Dept. of Commerce)
CFR	Code of Federal Regulations	NOAA	National Oceanic and Atmospheric Administration
cfsmaf	Cubic feet per second mean annual flow	NPDES	National Pollutant Discharge Elimination System
Corps	U.S. Army Corps of Engineers	NPS	National Park Service
CWA	Clean Water Act	NRCS	Natural Resources Conservation Service (U.S. Dept. of Agriculture)
CZMA	Coastal Zone Management Act (Federal)	OAHP	Office of Archaeology and Historic Preservation (State)
DOH	Washington Department of Health	RCRA	Resource Conservation and Recovery Act
DSHS	Washington Dept. of Social and Health Services	RCW	Revised Code of Washington
Ecology	Washington State Department of Ecology	ROW	Right-of-Way
EO	Executive Order	SDWA	Safe Drinking Water Act (Federal)
ESA	Endangered Species Act (Federal)	SEPA	State Environmental Policy Act
FAA	Federal Aviation Administration	SHPO	State Historic Preservation Officer
FACA	Federal Action Community Act	SIC	Standard Industrial Code
FHWA	Federal Highway Administration	SMA	Shoreline Management Act (State)
FRA	Federal Railroad Administration	SWDP	State Waste Discharge Permit
FWCA	Fish and Wildlife Coordination Act (Federal)	USC	United States Code
WPCA	Water Pollution Control Act (Federal)	USCG	United States Coast Guard
GMA	Growth Management Act (State)	USEPA	United States Environmental Protection Agency
gpd	Gallons per day	USFS	United States Forest Service
HPA	Hydraulic Project Approval	USFWS	United States Fish & Wildlife Service (Dept. of Interior)
JARPA	Joint Aquatic Resources Permit Application	WAC	Washington Administration Code
LWCFA	Land and Water Conservation Fund Act (Federal)	WAD	Dangerous Waste Identification Number
MTCA	Model Toxics Control Act	WDFW	Washington State Department of Fish and Wildlife
NEPA	National Environmental Policy Act	WDNR	Washington State Department of Natural Resources

Environmental and Engineering Programs

Environmental and Engineering Programs Director – 360-705-7101

Environmental Services Office

Management

Environmental Services Office Director – 360-705-7480

Administrative Staff - 360-705-7491

Fiscal and Business Manager - 360-705-7479

Liaison Manager – 360-705-7662

Compliance

Compliance Manager – 360-705-7448

Environmental Performance Manager – 360-705-7492

Environmental GIS Manager – 360-705–7476

Permits Manager – 360-705-7487

Policy

Policy Manager – 360-705-7126

Biology

Biology Manager – 360-705-7406

Alternative Mitigation and Retrofit – 360-705-7409

Fish and Wildlife – 360-705-7404

Wetland Assessment and Monitoring – 360-705-7518

Resource Programs

Resource Programs Manager – 360-570-6642

Air/Acoustics/Energy Manager – 206-440-4541

Cultural Resources Manager – 360-570-6637

Hazardous Materials Manager – <u>360-570-6658</u>

Water Quality and Stormwater Manager – 360-570-6656

Watershed Management Manager – 360-705-7477

Environmental Managers

Regional Offices

Eastern Region - 509-324-6134

North Central Region – 509-667-3055

South Central Region – 509-577-1750

North West Region - 206-440-4548

Olympic Region – 360-357-6702

South West Region – 360-905-2174

Urban Corridors - 206-464-1227

Maintenance and Other Modes

Highway Maintenance and Operations – 360-705-7812 Rail Office – 360-705-7902 Washington State Ferries – 206-515-3650

Design Services Managers

Regional Offices

Eastern Region – 509-324-6100 North Central Region – 509-667-3041 South Central Region – 509-577-1703 North West Region – 206-440-4114 Olympic Region – 360-357-2682 South West Region – 360-905-2093

Headquarters

State Design Engineer – 360-705-7231 Roadside and Site Development – 360-705-7242 Hydraulics – 360-705-7259

Planning Managers

Regional Offices

Eastern Region – 509-324-6195 North Central Region – 509-667-2906 South Central Region – 509-577-1630 North West Region – 360-757-5980 Olympic Region – 360-357-2630 South West Region – 360-905-2110

Headquarters

Transportation Planning – 360-705-7371

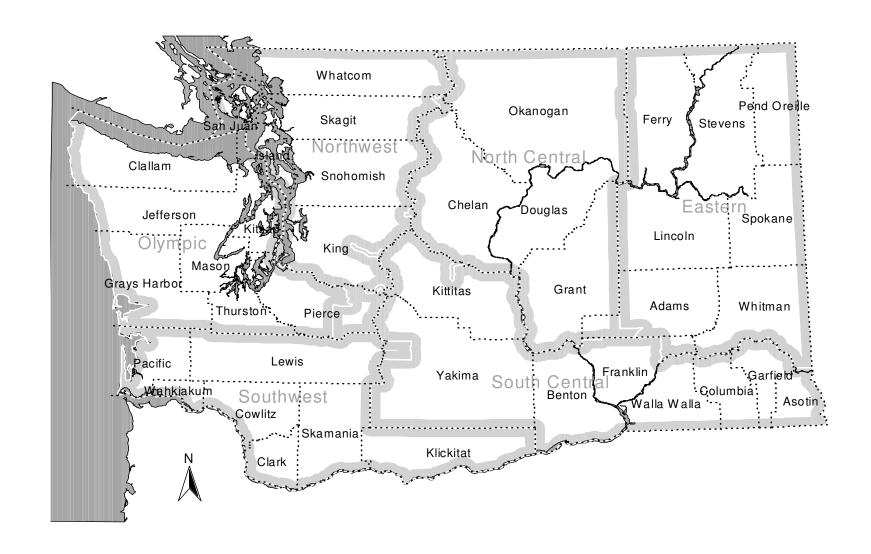
Highway and Local Program Managers

Regional Offices

Eastern Region – 509-324-6080 North Central Region – 509-667-3090 South Central Region – 509-577-1780 North West Region – 206-440-4734 Olympic Region – 360-357-2666 South West Region – 360-905-2215

Headquarters

Environmental Policy Branch Manager – 360-705-7344 Local Planning Liaison – 360-705-7258 Bicycle/Pedestrian Planning Specialist – 360-705-7302



FEDERAL

Agencies and Organizations	Acronym or Abbreviation	Web Site
Advisory Council on Historical Preservation	ACHP	http://www.achp.gov/
Bureau of Land Management,	BLM	http://www.or.blm.gov/
Oregon/Washington		This site is currently down for maintenance
		Contact info: http://www.or.blm.gov/contactus.htm
Council on Environmental Quality	CEQ	http://www.whitehouse.gov/ceq/
Federal Aviation Administration	FAA	http://www.faa.gov/
		Contact info: http://www.nw.faa.gov/organzn.html
Federal Transit Administration	FTA	http://www.fta.dot.gov/
		Local transit authorities in WA: http://www.fta.dot.gov/9054_8984_ENG_HTML.htm
National Marine Fisheries	NMFS	http://www.nmfs.noaa.gov/
Service		Northwest Regional Office: http://www.nwr.noaa.gov/
National Park Service	NPS	http://www.nps.gov/
		Regional Office addresses: http://www.nps.gov/legacy/regions.html
Natural Resource Conservation	NRCS	http://www.nrcs.usda.gov
Service		Contact info for Washington: http://www.wa.nrcs.usda.gov/contact/index.html
		Service center locator: http://oip.usda.gov/scripts/ndCGI.exe/oip_public/state?state= WA
U.S. Army Corps of Engineers	Corps	http://www.nws.usace.army.mil/index.cfm
Seattle District		Contact info: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitena me=Contacts&pagename=home
		WSDOT Team: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitena me=REG&pagename=Team_DOT
U.S. Department of Justice	USDOJ	http://www.usdoj.gov/
		Contact info: http://www.usdoj.gov/contact-us.html
U.S. Department of	FHWA	http://www.fhwa.dot.gov/
Transportation Federal Highway Administration		Field Office addresses: http://www.fhwa.dot.gov/fieldoff.htm

Agencies and Organizations	Acronym or Abbreviation	Web Site
U.S. Environmental Protection	USEPA	http://www.epa.gov/
Agency		Regional Office contact info: http://www.epa.gov/epahome/postal.htm
		Region 10 contact info: http://yosemite.epa.gov/r10/homepage.nsf/webpage/Contact+ Us?opendocument
U.S. Fish and Wildlife Service	USFWS	http://www.fws.gov/
		Office Directory: http://pacific.fws.gov/phonedir/office/index.cfm
USDA Forestry Service	FS	http://www.fs.fed.us/
		Contact info: http://www.fs.fed.us/r6/people.htm
U.S. Coast Guard	USCG	http://www.uscg.mil
		Unit List: http://www.uscg.mil/d13/ipa/pacific_northwest_unit_list.htm

WASHINGTON STATE

Agencies and Organizations	Acronym or Abbreviation	Web Site
Associated General	AGC	http://www.agcwa.com/
Contractors of Washington		Contact info: http://www.agcwa.com/public/contact/contact.asp
Community, Trade, and	CTED	http://www.cted.wa.gov/
Economic Development		Contact info: http://www.cted.wa.gov/portal/aliascted/langen/tabID38 /DesktopDefault.aspx
County Road Administration	CRAB	http://www.crab.wa.gov/
Board		Contact info: http://www.crab.wa.gov/contacts.asp
Department of Ecology	Ecology	http://www.ecy.wa.gov/
		Contact info: http://www.ecy.wa.gov/feedback.html
		Regional Offices: http://www.ecy.wa.gov/org.html
Department of Fish and Wildlife	WDFW	http://wdfw.wa.gov/
		Contact info: http://wdfw.wa.gov/contact.htm
		Regional Offices: http://wdfw.wa.gov/reg/regions.htm
Department of Natural	DNR	http://www.dnr.wa.gov
Resources		Regional Offices: http://www.dnr.wa.gov/base/regions.html
Department of Transportation	WSDOT	http://www.wsdot.wa.gov/
		ESO Contact List: http://www.wsdot.wa.gov/environment/ES_StaffList.htm
Puget Sound Regional Council	PSRC	http://www.psrc.org/
		Contact info: http://www.psrc.org/contact.htm

Agencies and Organizations	Acronym or Abbreviation	Web Site
Office of Archaeology and Historic Preservation	OAHP	http://www.oahp.wa.gov/
Governor's Office of Indian	GOIA	http://www.goia.wa.gov
Affairs		Contact info: http://www.goia.wa.gov/ContactUs/Contact.htm
Department of Health	DOH	http://www.doh.wa.gov
		Regional Offices: http://www.doh.wa.gov/DOHDirections/default.htm
		Local Offices: http://www.doh.wa.gov/LHJMap/LHJMap.htm

WASHINGTON LOCAL

Agencies and Organizations	Acronym or Abbreviation	Web Site
Municipal Research and	MRSC	http://www.mrsc.org
Services Center of Washington		Contact info: http://www.mrsc.org/contact.aspx

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PROCESS IMPROVEMENT SUGGESTION FORM

Environmental Procedures Manual, M 31-11

Please submit your process improvement suggestion by mail or e-mail to:

WSDOT Environmental Services Office

P.O. Box 47408 Olympia, Washington 98504-7310 Attention: EPM Revision

Use the reverse side of this form, attach a separate sheet of paper, or send via e-mail. Clearly state your suggestion and the reasons why it would be an improvement.

Please provide the following information with your suggestion:

We will contact you to be sure we clearly understand your suggestion, and we will keep you informed on how your suggestion will be handled.

Response

Attached is the outcome of our evaluation and an explanation of how we will, or why we will not, implement your suggestion.

Date of Response	
Evaluator's Name	
Evaluator's Telephone Number	
Evaluator's Signature	
Approved by (ESO Manager's Signature)	